INTERNATIONAL ENERGY AGENCY AND GLOBAL ENERGY SECURITY MATTERS

HEARING

BEFORE THE

SUBCOMMITTEE ON ENERGY, NUCLEAR PROLIFERATION, AND GOVERNMENT PROCESSES

OF THE

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INTERNATIONAL ENERGY AGENCY AND GLOBAL ENERGY SECURITY MATTERS

TUESDAY, JULY 14, 1981

U.S. SENATE,
SUBCOMMITTEE ON ENERGY, NUCLEAR PROLIFERATION, AND GOVERNMENT PROCESSES,
COMMITTEE ON GOVERNMENTAL AFFAIRS,
Washington, D.C.

The subcommittee met at 9 a.m., in room 3302, Dirksen Senate Office Building, Hon. Charles H. Percy (chairman of the subcommittee) presiding.

Present: Senators Percy, Cohen, and Glenn.

OPENING STATEMENT OF SENATOR PERCY

Senator PERCY. I would like to call to order this hearing of the Subcommittee on Energy, Nuclear Proliferation, and Government Processes to address the issue of international energy security.

I have a statement and I would certainly like to hear from Senator Glenn and Senator Cohen.

We are glad you are here this morning.

Despite the much-publicized oil glut, the oil-consuming world is as threatened by the possibility of an oil cutoff today as we were 2 years ago when gas lines spread around this country and prices skyrocketed around the world. Our suppliers are still dangerously concentrated in the volatile Persian Gulf region. The flow of oil can be cut all too easily by revolution, invasion, regional war, or terrorism.

The energy security problem makes us feel what we have long said, "The world is interdependent." The common world oil market assures that no country whose economy and security is dependent on imported oil can act in isolation from other nations. The alternative to cooperation in our energy policies is competition, which leads to higher prices and scarcity for all.

The International Energy Agency serves as the focal point for coordinating the policies of the world's major energy consuming nations. So far, it has served us well. The IEA deserves some of the credit for the fact that the Iraq-Iran war did not cause gas lines and skyrocketing prices. Most of the credit, though, has to go to our good luck. Stocks were high at the time, and Saudi Arabia and some other oil producing countries stepped up their production to fill much of the gap that remained.

We cannot count on such good fortune in the future. The oil cutoffs may be bigger, they may come at the wrong time, and they may end up hurting us much more.

What can we do in the meantime? Domestically, we should start applying more commonsense in preparing for future disruptions. My colleague, Senator Bradley, will testify this morning on the Emergency Preparedness Act of 1980, a bill I have cointroduced with him which would give our emergency planning efforts a more market-oriented flavor.

I think this bill is very much in line with the overall approach the Reagan administration is taking on energy policy. Yet, it only addresses part of our lingering energy security concerns. I still see some significant gaps in our energy defenses.

First, we have to focus on the problem of price, without slipping into the rut of price controls. While the experience of the last several years shows that we have to be willing to let the market operate relatively freely, the world community must work together to prevent unnecessary and potentially permanent increases in world oil prices. If we fail to do something about prices, no international sharing scheme will make much difference. The price of allocated oil could jump so high that many countries would be unable to buy the oil they are allowed. I do not want to see $100-a-barrel oil, and I have no easy answers to the price problem, but I think we could be doing a lot more work in the area of stock management and disruption tariff policies.

Second, we have not sufficiently addressed the problem of energy security in the developing world. The nature of the world oil market and the problem of nuclear proliferation make the energy concerns of the Third World the concerns of every nation.

If the lesser developed countries do not effectively prepare for the oil shortage that the whole world may someday see, they could lose a generation of growth, and we could see our foreign assistance goals undermined.

Third, we must integrate our energy security planning with the rest of our national security planning. Energy security questions should be near the top of our military leaders' agendas, and NATO is a good place to start. NATO can address a number of sensitive energy security questions that the IEA cannot—especially those involving East-West relations—and I would like to see it do so.

Finally, we have to give more consideration to the financial effects a truly severe oil disruption could have. The financial, monetary, and economic policies of the entire world community could be badly shaken by an oil cutoff of major proportions. Rather than wait until a shortage hits and panic ensues, we must ask ourselves today what we might do to cope with its potentially very damaging side effects.

The current plenty in the world's oil markets is only a calm in the eye of the storm. If we use this time well, we can develop and implement a global energy security policy that works. If not, we are in for a rough and dangerous ride through this decade and beyond.

Senator Glenn?

Senator GLENN. Thank you, Mr. Chairman. I have no statement.

Senator PERCY. Senator Cohen?

Senator COHEN. No, thank you, Mr. Chairman.

Senator PERCY. I am very pleased in behalf of the committee to welcome our distinguished colleague from New Jersey, Senator Bill Bradley. Senator Bradley is acknowledged by his colleagues on both

sides of the aisle as an expert in the energy security issue. He has a unique understanding of the international aspects of energy policy and how they relate to overall national security concerns, largely through his efforts to fill the strategic petroleum reserve.

Most recently Senator Bradley and I introduced legislation designed to replace the expiring Emergency Petroleum Allocation Act.

Senator Bradley, we are very pleased to welcome you today.

TESTIMONY OF HON. BILL BRADLEY, A U.S. SENATOR FROM THE STATE OF NEW JERSEY

Senator BRADLEY. Thank you very much, Mr. Chairman. I appreciate this opportunity to come before the committee and speak about the bill that the chairman and I introduced in the general area of emergency preparedness for energy.

What I would like to do, with the chairman's permission, is submit my entire statement for the record and make some summary comments, read selectively from the statement, and then to respond to any questions that the committee might choose to ask.

Senator PERCY. Without objection, it will be incorporated in full.

[The statement follows:]

PREPARED STATEMENT OF SENATOR BILL BRADLEY

Mr. Chairman, members of the subcommittee, I thank you for the opportunity to appear before you today to discuss the crucially important subject of international energy security and the International Energy Agency. The Chairman is to be congratulated for his aggressive leadership in this field and his strong commitment to reducing U.S. vulnerability to oil supply disruptions. The nation is fortunate indeed to have Senator Percy in several responsible positions to help us through the era of international vulnerability we face over the next decade. Perhaps the greatest source of that international vulnerability stems from the fact that 40 percent of the oil burned by the free world each day can be intentionally or accidentally shut off tomorrow. It is this vulnerability to disruptions that we address here today.

Mr. Chairman, you and I have been saying for some time that the absolute level of U.S. oil imports is not the real measure of our vulnerability. Several of our allies will never be able to reduce their oil imports to zero; even if we could spend the enormous sums of money it would take for the U.S. to become "energy independent," our allies will be importing oil well into the next century. Our moral and economic ties with Europe and Japan link us closely to our friends abroad. If their economies and living standards are damaged by oil disruptions, ours are too. Therefore, even if the U.S. imports no oil, we remain vulnerable to the effects of oil supply disruptions. The level of U.S. imports is not the most important measure of energy security; the most important measure is our ability to withstand accidental or intentional oil supply interruptions.

Again, Mr. Chairman, you and I have been suggesting ways to reduce our vulnerability for some time now. We have pointed out that there are two important components of vulnerability reduction: stockpiling and pricing. Furthermore, stockpiling and pricing policies that are coordinated with our allies are immeasurably more effective than unilateral actions. The IEA has played an important role in stockpiling and pricing in the past; these roles should be developed and strengthened in the future.

The most effective means of limiting the price rises during a supply disruption is to have and use large stockpiles of oil. A comparison of the Iranian revolution and the Iran/Iraq war illustrates this point vividly. At the outset of the Iranian revolution, stocks were very low. With the first signs of trouble in Iran in October 1978, oil companies around the world realized the precarious nature of their low-stock position and began to build inventories rapidly. With Iranian oil production falling and world-wide inventories expanding, prices had to rise. They did—from $12.70 per barrel in 1978 to $32 in 1980.

By September 1980, inventories around the world were at record high levels. The Iranian revolution had served as a forceful reminder of the insecurity of our oil supplies. Mr. Chairman, you had the foresight to hold a hearing on the state of our emergency preparations on September 22, 1980. That very day Iraq invaded Iran. (I hope history doesn't repeat itself in honor of these hearings today!) But during the Iran/Iraq war with inventories bulging, the world oil market remained calm. Oil prices rose a couple of dollars per barrel, but nothing like the price jump that accompanied the same-sized disruption a year and a half earlier. I suggest that the combination of high stocks, and increased oil production in Saudi Arabia, contributed to the relatively small price increase. The combined stockpiles of IEA countries could provide the same source of additional oil production in future disruptions that Saudi Arabia provided during the Iran/Iraq war. This coordinated surge production capability should be the goal of IEA stockpiling policy.

The second major component of an emergency preparedness—both domestically and internationally—is pricing policy. The way oil is priced during a supply disruption can have enormous effects on how we deal with the disruption. For example, the pricing policy chosen by a nation can encourage or discourage stockpiling in advance of disruptions. If prices are to be controlled during disruptions, people who are considering oil storage—and oil storage isn't cheap these days—simply will not bear the burden of oil storage. On the other hand, if prices are to be allowed to rise, so that people who bear the financial burden of oil storage will be allowed to reap the benefits of storage, then people will store more oil.

Similarly, the pricing policy adopted by a nation can discourage or encourage oil consumption. If oil prices are held down during disruptions, consumers will consume more oil than if prices are allowed to rise to market levels.

Finally, the pricing policy adopted by a nation can facilitate good relations among nations or it can cause distrust and ill-will. Specifically, if the U.S. imposes price controls on domestically-produced oil, it subsidizes its imports of foreign oil. If the U.S. imposes price controls, it enables U.S. oil companies to "roll in" low-cost domestic oil with higher-price foreign oil, and it thus enables U.S. firms to bid supplies away from other oil importing nations.

Clearly, the choice of a pricing policy is crucial to oil storage, demand restraint, and good relations among allies.

Mr. Chairman, the bill that you and I introduced last month sets forth the means to achieve a pricing policy that will encourage stockpiling, that will reduce demand, and that will not antagonize our allies by subsidizing imports during a supply disruption. The Emergency Preparedness Act of 1981, S. 1354, would accomplish these goals, simultaneously providing financial assistance to the economy in general and low-income people in particular.

Our bill has four basic components:

First, market forces would be allowed to set prices and distribute oil supplies. Price controls and allocations would be avoided.

Second, the President would reduce income, payroll, and gasoline excise taxes; increase Social Security and other Federal income maintenance payments; and provide state governors with emergency block grants enabling local officials to address cases of severe personal hardship and other priority activities in their individual states and localities.

Third, the existing Windfall Profit Tax would be adjusted to capture a larger portion of the price increase caused by the disruption while eliminating the tax on oil produced and discovered after the disruption begins.

Finally, a portion of the oil from the Strategic Petroleum Reserve would be auctioned at the outset of the disruption to those refiners whose crude oil supplies have been disrupted.

Mr. Chairman, I believe that this bill has many advantages over any alternative presented so far, and I would be more than happy to describe them. However, let me concentrate today on the international implications.

As I have said, allowing prices to seek market levels during a disruption will encourage people to build oil stocks and take other actions to prepare in advance for supply disruptions. It will provide the most effective form of demand restraint. These are two parts of the IEA emergency plan, oil storage and demand restraint. Our bill is also perfectly consistent with the third, component of the IEA emergency plan, supply allocation, as I will now describe. If a disruption occurs and the IEA emergency sharing is not triggered, all countries will share the shortfall in approximate proportion to their total oil consumption. This is the way the market

works if no international allocation is performed. However, if the IEA sharing agreement is triggered, the U.S., Canada and Great Britain would get a greater share of available oil supplies; and Germany, Japan, and Italy will get less than under a market allocation. (This occurs because the IEA formula calculates each country's supply right taking into account percentage of consumption supplied by imports. The U.S., Canada and Great Britain have low percentages when compared with Germany, Japan and Italy, who depend on imports for virtually all of their consumption.) Thus, if the U.S. does not impose price controls, the U.S., will demand less oil than would be allocated to the U.S., under the IEA sharing agreement. Without price controls the U.S., would be very unlikely to incur an obligation to divert supplies to other IEA countries.

However, if the U.S. imposes price controls, it will encourage oil demand and will probably import more oil than is allocated to it under the sharing agreement. In this case, the U.S. would have an obligation to supply oil to another IEA country. Some U.S. companies would be required to sell oil to another country at an unspecified price, leading to uncertainty and strain on the IEA system. Clearly, the threat of imposition of price controls in the U.S. is a major reason our allies now support what would otherwise appear to be an inequitable sharing arrangement. The Bradley-Percy bill would go a long way toward assuring our allies that we are a trustworthy trading partner, who will not take advantage of its domestic production to subsidize imports during disruptions.

Mr. Chairman, I could go on about the advantages of our bill over regulatory alternatives. I assume the Administration will not endorse a regulatory emergency preparedness strategy; I assume a President who has eliminated controls on oil prices and regulations that have misallocated oil supplies will not propose an emergency strategy that could lead to the reimposition of those same controls.

Of greater concern to me is the possibility that the Administration will propose nothing, that they will allow the EPAA authorities to expire in September, and wait for the next disruption to occur before submitting proposed legislation. This strategy is frought with risk and uncertainty. Our allies will not know how the U.S. plans to deal with the next supply disruption and may not be satisfied with the response. We'll tell you what we're going to do when the time comes. The preparations in the form of stock building, that would be encouraged if people knew that prices would not be controlled and oil supplies would not be expropriated, would not occur. State and local governments will not know whether to prepare for oil allocations, state set-asides and coupon rationing or whether they should prepare to distribute emergency block grants to low-income people, police and fire departments, and other priority activities in the state. I encourage the Administration to consider the alternatives and join this debate that you and I, Mr. Chairman, have begun with the introduction of S. 1354.

In summary, Mr. Chairman, I commend you for your leadership in pointing out that it is the preparation for supply disruptions, not the level of U.S. imports, that is of crucial importance to energy security. Preparations take the form of stock building and pricing policies. Pricing policies can assist in stock building, demand restraint and international coordination; or they can discourage stock building, subsidize demand, and sow discord among our IEA allies. S. 1354 takes a giant step toward domestic and international energy security.

Thank you. I would be happy to answer questions.

Senator BRADLEY. Mr. Chairman, I think that any discussion of emergency preparedness has to start with a rather less well-known premise; that is, that the United States has to make a distinction between vulnerability and dependence. We, like many of our allies, are dependent upon foreign sources of oil, we less than most of our allies. But it is not that dependence per se that presents the problem. The problem is rather the vulnerability that we and our allies have to oil supply disruptions.

In the last 7 years we have had three significant disruptions in the supply of oil. It is quite probable that in the next several years, we will have another disruption in the supply of oil. So just as it is important to reduce our dependence, it is even more important to provide our country with the necessary cushion to be able to absorb the chaotic effects on our economy, and our national security that would flow from another oil supply disruption.

I think that to pursue energy independence per se is somewhat of an illusion as long as we remain loyal to our alliances and as long as the world economy is interdependent.

So the question arises, what should we do to counter the catastrophic effects of oil supply disruptions on our economy; I think that by far and away the best thing that all industrial countries can do is to stockpile oil. I think that the existence of and the willingness to use large stockpiles of oil is the best counter to any disruption that might occur in the world. I would give you two examples: First, was the situation in Iran in late 1978, early 1979. At that time world oil stocks were at alltime lows, inventories were drawn low. The situation deteriorated in Iran, affecting the oilfields and production cutbacks. It was precisely at that time that major oil companies and other sources began to stockpile oil, thereby exacerbating the problem. There was a run on the spot market and in a short period of time the price of oil went from $12 to $32, largely caused by the absence of a major stockpile and by the decision to stockpile in the midst of a crisis.

Take as a second example the Iraq-Iran war in September 1980 when world oil stockpiles were at an alltime high. At that time, the IEA used its good offices—it is hard to tell whether it was primarily responsible—but it did use its good offices in communication with the oil-consuming nations, saying that what we should do in the face of this crisis was to draw down our oil stockpile. We did that, all industrial countries, and found a very moderate price increase. So I think that these two examples are contrasting examples which show that if we have a large stockpile, and are willing to use it in the face of an oil supply cutoff, that the result will be much lower price increases and much more stable conditions for our economy.

I would like to say the second major component to our emergency preparedness policy is really pricing policy; that is, the way oil is priced during supply disruptions can have enormous effects on how we deal with disruption. For example, the pricing policy chosen by a nation can encourage or discourage stockpiling in advance of disruptions. If prices are to be controlled during disruptions, people who are considering oil storage simply will not bear the financial burden of that oil storage. On the other hand, if prices are allowed to rise so that people who bear the financial burden are allowed to reap the benefits of that storage; that is, the higher price, then people will store more oil.

Similarly, a pricing policy adopted by a nation can discourage or encourage oil consumption. If oil prices are held down during disruptions, consumers will consume more oil; if prices are allowed to rise above market levels, they will consume less oil.

Finally, the pricing policy adopted by a nation can facilitate good relations among nations, or it can cause distrust and ill will. Specifically, if the United States imposes price controls on domestically produced oil, it subsidizes imports of foreign oil. The United States imposes price controls and enables U.S. oil companies to roll in low-cost domestic oil with higher priced foreign and it thus enables U.S. firms to bid supplies away from other oil-importing nations.

Clearly, the choice of a pricing policy is crucial to oil storage, to demand restraint, and to good relations among our allies.

Mr. Chairman, as you know the bill that we have introduced addresses these issues in a direct way and I think in a sensible way, and I hope that the Congress, when faced with the expiration of the Emergency Petroleum Allocation Act in September, will have the good sense to take a careful and thoughtful look at our proposal.

As you know, our proposal has four basic components. First, market forces would be allowed to set prices and distribute oil supplies. Price controls and allocations would be avoided.

Second, the President would reduce income, payroll, and excise taxes, increase social security, and other Federal income maintenance payments, and provide block grants to State Governors to allow them to address their own individual circumstances. In one State, it might be the fishermen, in another State it might be the farmers.

The third component of our bill provides that the revenue for this transfer would come from the existing windfall profits tax. As you know, when there is a disruption, the price of oil skyrockets. When the price of oil skyrockets, given the way the windfall profits tax is written, much higher revenues come to the Federal Governments. It is the purpose of our bill to make sure that those much higher revenues are earmarked for tax reduction for Americans to allow them to cope with the higher oil prices that flow directly from the disruption.

The fourth component of our bill provides that oil from the strategic petroleum reserve would be auctioned at the outset of the disruption to those refiners whose crude oil supplies have been disrupted. The theory there is that the market functions more efficiently than the Government bureaucracy, that it is a creative use of our strategic petroleum reserve and that it would get oil to those refiners who placed the highest value on the next barrel of oil for their refinery.

Mr. Chairman, I think this bill has many advantages over any alternative presented so far. I would be more than happy to answer questions on the bill. As I have said, allowing prices to seek market levels during the disruption will encourage people to build oil stocks and take other actions to prepare in advance for supply disruptions. It will provide the most effective form of demand restraint. These are two parts of the IEA emergency plan, oil storage and demand restraint. Our bill is also perfectly consistent with the third component of the IEA emergency plan which is supply allocation, which I will describe for the subcommittee now.

If the disruption occurs and the IEA emergency sharing is not triggered, all countries will share the shortfall in approximate proportion to their total oil consumption. This is the way the market works if no international allocation is performed. However, if the IEA sharing agreement is triggered, the United States, Canada, and Great Britain would get a greater share of available oil supplies. Germany and Japan and Italy will get less than under market allocation. This occurs because the IEA formula calculates each country's supply right taking into account percent of consumption supplied by imports. The United States, Canada, and Great Britain have low percentages when compared with Germany and Japan and Italy who depend on imports for virtually all their consumption.

Thus if the United States does not impose price controls, we will demand less oil than would be allocated to us under the IEA sharing

agreement. Without price controls, the United States would be very unlikely to incur an obligation to divert supplies to other IEA countries. However, if we impose price controls, it will encourage oil demand and will probably import more oil than is allocated to it under the sharing agreement. In this case the United States would have an obligation to supply oil to another IEA country. Some U.S. companies would be required to sell oil to another country at an unspecified price, leading to uncertainty and strain on the IEA system. Clearly the threat of imposition of price controls in the United States is a major reason our allies now support what would otherwise appear to be an inequitable sharing agreement.

The Bradley-Percy bill, Percy-Bradley bill, would go a long way toward assuring our allies that we are trustworthy trading partners who will not take advantage of our domestic production to subsidize imports during disruption.

Mr. Chairman, I could go on about the advantages of our bill, but I would like to focus on one other issue because it is of great concern to me. That is the possibility that the administration will propose nothing, that they will allow the emergency petroleum allocation authorities to expire in September and wait for the next disruption to occur before submitting proposed legislation. That strategy is fraught with risk and uncertainty. Our allies will not know how the United States plans to deal with the next supply disruption and may not be satisfied with the response, "We will tell you what we are going to do when the time comes."

The preparations in the form of stock building would be encouraged if people knew that prices would not be controlled and oil supplies would not be expropriated and would not occur. State and local governments will not know whether to prepare for oil allocations, State set-asides, coupon rationing, or whether they should prepare to distribute emergency block grants to low-income people, police, fire departments, and other priority activities in the State.

So, Mr. Chairman, I encourage the administration to consider the alternatives and join in this debate that you and I have begun with the introduction of S. 1354.

Finally, Mr. Chairman, I commend you and your leadership in pointing out that it is the preparation for supply disruptions, not the level of U.S. imports, that is of crucial importance for energy security. Preparations again take the form of stock building and pricing policies. Pricing policies can assist in stock building, demand restraint, and international coordination, or they can discourage stock building, subsidize demand and, sow discord among our IEA allies.

I thank the chairman very much and would be pleased to answer questions at this time.

Senator PERCY. Senator Bradley, thank you very much for personally being here with us. I do think the legislation we have introduced, the Bradley-Percy bill—I may occasionally slip and refer to it as the Percy-Bradley bill—is certainly consistent with the requirements of the IEA agreement. I think we are now in a period where the Emergency Preparedness Act is essential. This debate will go on as the Emergency Petroleum Allocation Act expires. I would prefer to have you join us, if you can, rather than ask questions, though I defer to my colleague, Senator Glenn.

Senator GLENN. I just have one question.

As I understand it, the Bradley-Percy bill recycles the windfall profit tax revenues to individuals and State governments. How does business fit in?

Senator BRADLEY. It does not address business specifically. It addresses individuals. Our experience has been with the coupon-rationing plan that once you start to try to take care of every little interest group, every little business, that you are going to end up with an inequitable result. It is much better to take care of individuals and then provide the Governor of each State with the block grant with which he can do as he chooses. If he has got industry that is particularly hard hit, he has every right to distribute that block grant to the industry in his State. It recognizes that the problems faced by a State in one region of the country are different from the problem faced by another State in another region of the country in the face of the disruption. The bill provides the Governor of each State with the flexibility to take advantage of that.

The transfer is primarily through reduced social security taxes, excise taxes, increased income maintenance to individuals, and through block grants to States, Governors, to allow them to take care of it.

Senator GLENN. Does the bill provide lower tax rates for businesses in any way?

Senator BRADLEY. No; it does not.

Senator GLENN. I won't pursue this now.

Senator COHEN. You are reducing the social security tax. What does that do to the social security fund?

Senator BRADLEY. The social security tax reduction was a candidate simply because if you reduce that tax, you have the most positive effects on the economy. You are only reducing the taxes to the degree that the windfall profit tax revenues go into the fund. In other words, the present structure of the trust fund would be interchanged because the revenues would simply be replaced. Instead of higher taxes, you would have the windfall profit tax coming to replace that.

Senator COHEN. Any change in the tax structure itself, the windfall profit tax structure?

Senator BRADLEY. We asked the President to submit to the Congress his recommendations. I would argue that in the disruption, where you face the possible increase in the price of oil, say, $50 to $60 a barrel, that for this period you might increase the windfall profit tax. Likewise, I would suggest that if you had any oil discovered after the point of the disruption, there would be no windfall profit tax. We take these position advisedly in the bill because really this is a request that the administration moved on their emergency preparedness tax policy.

Senator PERCY. Thank you very much, Senator Bradley. We are delighted to have you here this morning and we would be pleased to have you join us.

Our first panel this morning, Under Secretary of State for Economic Affairs, Myer Rashish; Assistant Secretary of State for Economic and Business Affairs, Robert Hormats, and Peter Borré, Acting Assistant Secretary for International Affairs at the Department of Energy.

Gentlemen, we welcome you very much indeed. It is very good to see you. Let's get right down to brass tacks here. I am pleased that we have such a distinguished and knowledgeable panel of witnesses representing the administration today.

The first witness is Under Secretary of State Myer Rashish, who is coordinating plans for the upcoming summit. While I will have an opportunity to discuss the summit in greater detail with you later today in the Foreign Relations Committee, I look forward to your explanation of the administration's broad energy security strategy with our allies in Ottawa. I also look forward to hearing what Secretary Hormats has to say about the details of our policy and the results of the administration's review of U.S. participation in the International Energy Agency.

It is good to see Peter Borré as well, Acting Assistant Secretary for International Affairs, Department of Energy, who testified before the field hearing of this subcommittee in Illinois. We were very pleased indeed to have you there and to have you here today as well.

Senator Cohen and I will have to leave for lunch with the President, who is coming over to address the Policy Committee, so I will turn the chair over at that time.

Under Secretary Rashish, as an economist, you are well aware of the crucial place of energy in the health of the economy in the United States and our allies. Since 1973 the price of our major energy source, oil, has increased 10 times over.

More importantly, the events of the seventies taught us that we would live the next few decades under the threat of a crippling oil disruption. That could not only stagger our economy, but lead us up to, if not over the brink of international conflict. We have a great opportunity, I think, in the upcoming Ottawa Conference, to consult with our allies and spur further cooperation on our common energy concerns.

I understand that you have other commitments this morning, so we will limit our questions and keep right on schedule.

TESTIMONY OF MYER RASHISH, UNDER SECRETARY OF STATE FOR ECONOMIC AFFAIRS; ROBERT D. HORMATS, ASSISTANT SECRETARY FOR ECONOMIC AND BUSINESS AFFAIRS, DEPARTMENT OF STATE; AND PETER BORRÉ, ACTING ASSISTANT SECRETARY FOR INTERNATIONAL AFFAIRS, DEPARTMENT OF ENERGY

Mr. RASHISH. Thank you, Mr. Chairman.

This is in fact my maiden appearance before a congressional committee postconfirmation. I think they are overdoing it. I have got three today: At 10 o'clock, I am to appear before the Joint Economic Committee; at 2:30, we have a briefing with the Foreign Relations Committee with some of our colleagues on the summit preparations.

I would like to make a brief opening statement and then the balance of the time would be available for questions.

I am confident in the knowledge that my two very able colleagues, Bob Hormats on my right, Peter Borré on my left, will be able to stay through their statements and answer questions that the members have.

I therefore would like to make some brief opening comments. First, on the question of the need for energy security, it is clear the greater energy security, both for ourselves and for our friends and allies, is an indispensible element of the foreign policy of the United States.

Many of our most important allies are even more heavily dependent than we are on expensive and insecure supplies of imported energy. They are understandably concerned about their vulnerability to energy supply interruptions, whether these be caused by embargoes or political instability in energy exporting regions.

The free world will depend on the petroleum resources of the Persian Gulf for at least another decade, and probably for much longer. Conflicts in this region have disrupted Persian Gulf oil supplies in the past, and more serious interruptions could occur in the future, especially if the Soviets became more actively involved.

The possibility that several European nations may import substantially increased volumes of Soviet natural gas through a new Siberian pipeline raises further questions about the security of Western energy supplies. Unless adequate preparations are made, energy supply interruptions could inflict substantial economic losses and impose serious political strains on the United States and our allies.

The administration recognizes that the development of a cooperative approach to energy security is essential in developing allied support for U.S. policy in the Middle East and in maintaining the cohesion of the Western democracies in resisting Soviet pressure. To strengthen energy security we must:

Enhance the stability of the Persian Gulf region and thus minimize the risk of oil supply interruptions;

Improve preparedness for energy supply disruptions;

Reduce the role of oil in our economies by using free market pricing to foster more efficient energy use and increased domestic energy production; and

Increase and diversify energy supplies by promoting widespread development of the energy resources of non-OPEC developing countries.

We must not let the lull in world oil markets dull our sense of urgency in pursuing these tasks. Although we have made significant progress, we remain vulnerable.

RELATIONS WITH OIL PRODUCERS

Energy security is contingent on constructive Western influence in energy producing areas, especially the Persian Gulf and the Middle East. As you are aware, the Reagan administration is making every effort—diplomatic, political, and military—to reduce tension in that troubled area, contributing significantly to the energy security of us all.

Our effort focuses both on the need to improve the regional security environment—and our own strategic position—in the face of serious Soviet pressure, and the need to move forward constructively in pursuit of a just and lasting Middle East peace.

These two prime objectives are mutually reinforcing, and in pursuing them we are engaged in mediation, security assistance, and a number of other political, economic, and military undertakings.

We are also intent on improving relations with other key oil exporting nations, especially those in the Western Hemisphere. President Reagan has established a warm dialog with Mexican President Lopez-Portillo. We are working to strengthen our already close relationship with Venezuela.

IEA COOPERATION ON ENERGY SUPPLY DISRUPTIONS

The main focus of this hearing is energy preparedness, which Bob Hormats will cover in more detail. The administration has embarked on an effort both at home and in the IEA to improve preparedness for energy supply emergencies.

At the IEA ministerial meeting last month, Secretary Edwards and Deputy Secretary Clark reaffirmed U.S. support for international cooperation in the IEA. We recognize that the IEA has been the cornerstone of U.S. international energy policy since 1974, when the United States helped to create it. We intend to maintain all the authority we need to participate in the IEA oil sharing system.

The administration believes that high oil stocks are an essential part of international energy preparedness. The administration has greatly increased the size of the Nation's strategic oil reserves, and we continue to fill the SPR at a rapid rate.

High stocks provide confidence and time during which IEA governments can consult and determine what further action may be necessary. At the IEA ministerial, the United States urged other countries to follow our lead in building up oil security stocks.

IEA countries are reviewing cooperative policies for dealing with oil supply disturbances which do not trigger the IEA oil sharing system. The administration is studying these proposals and is seeking the views of the private sector. We have agreed that if a subtrigger crisis occurs, we will meet promptly with our IEA partners, consider responses carefully in light of the details of that particular situation, and take whatever action we all agree is necessary.

ENERGY SECURITY AT THE OTTAWA SUMMIT

Next week the President will meet with major Western leaders at the Ottawa Economic Summit meeting. We expect a broad consensus at Ottawa on a common Western approach for fostering greater energy security. The principal elements of this approach are:

Reaffirmation of our commitment to international cooperation in responding to energy supply disruptions and of the need to improve emergency preparedness by maintaining high oil stock levels.

Recognition that market-oriented policies provide an effective means of stimulating increased domestic energy production and more efficient energy use. The President's decision to decontrol domestic oil prices will be well-received in Ottawa, and the beneficial effects of this policy are already being seen. U.S. net oil imports for the first half of 1981 are running at just over 5 million barrels per day, 3½ million barrels per day below the 1977 peak. Other summit nations are making similarly dramatic progress.

Acknowledgment that increased use of nuclear power and coal can make an important contribution to energy security. To encourage greater reliance on these energy sources, summit nations must credibly address concerns about environmental impact, safety, and proliferation risk.

Support for the development of energy resources in developing countries. Faster development of their energy resources could make developing countries less politically vulnerable and economically

dependent on OPEC. We will be looking for ways of insuring that multilateral energy lending has a maximum multiplier effect by encouraging private investment flows.

Support for energy investment policies based on national treatment for foreign firms and reliance on market forces to promote the efficient distribution of investment capital. This is a particularly important issue in the host country of this year's summit, and we intend to have a full and frank discussion of investment questions at Ottawa.

The United States sees international cooperation on energy security as a central element of a foreign policy based on economic and military strength and close cooperation and consultation with our friends and allies abroad. During the present slack oil market, we must persevere with the task of restructuring our energy economy and reducing our vulnerability to oil supply interruptions.

In this regard, I am confident that the President's meeting in Ottawa next week will give welcome impetus to ongoing work here and abroad to enhance Western energy security.

Thank you, Mr. Chairman.

Senator PERCY. Thank you, Mr. Secretary, very much indeed for taking into account the similarity in economics between President Reagan on the one hand, and on the other hand Margaret Thatcher.

They may be very comfortable in deciding to agree on energy issues. Certainly they can come much closer together.

Do you expect any resistance on the part of the allies to any elements of our energy initiatives at the Ottawa Summit?

Mr. RASHISH. No; I think there is a remarkable degree of unanimity over the guiding principle that, despite the present ease in world oil markets, there has to be consistent, persistent, and strong commitments to energy savings, to reducing oil import dependence, and to making sure that the system of contingency planning for energy crises is effective. On this issue there is remarkable agreement.

Senator PERCY. I think one of the most important sentences you have in your testimony, "We must not let the lull in the world oil markets dull our sense of urgency in pursuing these tasks."

I think it is symbolic that we are holding these hearings in the midst of the lull. Just as sure as we are sitting here, we know we are going to face another crisis, but the question is not if, but what type and of what severity the crisis will be. The oil-sharing scheme of the international agency is one of the most important defenses against major oil supply disruption. In the United States, however, we have learned some painful lessons about the wisdom of allocating petroleum. Do these lessons apply internationally? Should we attempt to control the international oil market in a disruption and let the domestic market run free, or vice versa, as we have done in the past?

Mr. RASHISH. I am not sure that I understand the question, Mr. Chairman. Could you repeat it?

Senator PERCY. Let me just repeat it. In the United States we have learned some painful lessons about the difficulty and wisdom of allocating petroleum. Do these lessons that we have learned right here, the painful experiences we have had in attempting to allocate parity, apply internationally? Should we attempt to control the international oil market in a disruption and let the domestic market go free, or vice versa, as we have done in the past?

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Mr. RASHISH. The lesson of history is that we ought to place maximum reliance on market forces, both at home and in the international market. Allocation will take place through a market system more efficiently than it would if rationing is attempted.

Senator PERCY. That bill that Senator Bradley and I have introduced together seek to bring a free-market approach to our energy emergency planning and it represents I think, and he thinks, the most effective way of going about meeting our domestic energy security needs and at the same time will assist us in fulfilling our obligations under the international energy plan. Have you had a chance to look at the principles of that legislation and would you concur in general with those principles?

Mr. RASHISH. I have not had a chance to look at that legislation, but the principles sound fine to me. I should add that we are committed to fulfilling our obligations under the IEA. That has to be a critical consideration in any policy we pursue toward our own energy supply security.

Senator PERCY. There is no conflict between this bill and our efforts to fulfill our international obligations. One last question: In the past 8 years energy has become an issue of security. In the U.S. Government, we have a number of departments and agencies that share in our national security responsibilities. One problem that I personally had with the previous administration was that I simply did not know who to call when I had a question about an international energy policy.

Who is in charge of the store in the Reagan administration, and are you the one that we should call?

Mr. RASHISH. I would be glad to give you my phone number, Mr. Chairman, and if I don't know the answer, through the collegial arrangements we have in the executive branch, including cooperation between the Department of State and Department of Energy, I am sure we can find the answer to your questions.

Senator BRADLEY. Just don't call the White House, Mr. Chairman.

Mr. RASHISH. I hope the recorder points out that I didn't say that. [Laughter.]

Senator PERCY. Thank you very much.

Senator Glenn?

Senator GLENN. Thank you, Mr. Chairman.

Mr. Secretary, in your testimony you mentioned that the free world will depend on the petroleum resources of the Persian Gulf for at least another decade. How do you think we will work out of that dependence in another decade?

Mr. RASHISH. We have demonstrated the remarkable adaptive capacity over the last several years to reduce our dependence on not only imports in general, but imports originating in the Persian Gulf area. I suspect that the market forces, the elasticity of response which has brought about these results, will continue to operate. Indeed, we have not yet seen all the effects of the 1978, 1979 price increase, There is an effective adaptation process still going on in the world economy. We will also be finding a good deal more energy supplies, particularly oil in regions that are not part of OPEC and aren't likely to become members of OPEC, outside of the Persian Gulf area. So the long-term prospect, I suspect, is for continued diminution of dependence on Persian Gulf supplies.

Senator GLENN. I think energy conservation has had a big effect on this. There have been a considerable number of studies performed by scientists at Oak Ridge and Lawrence Berkeley Lab that Government R. & D. programs in energy conservation have paid for themselves many times over, yet the new administration cut the energy conservation budget some 70 percent. Does that make sense?

Mr. RASHISH. I can't say that I know in detail what has been happening on the administration's energy budget but the conservation that we have seen, which has been so dramatic, has been a response to price developments rather than the result of expenditure programs of the Government.

Senator GLENN. It is your feeling that we can conserve ourselves into energy independence?

Mr. RASHISH. I think we can through a combination of efficiency in energy use, development of alternative sources of supply, and new technologies.

Senator GLENN. That comes to my next point. I noted you list the things that you stress for energy security and there is not a single word in here about alternative energy source development. In the summaries, there is nothing either as to what is going to come out in Ottawa. That disturbs me very much. It disturbed me about the whole administration's new approach to this whole business. I spent a lot of time 3 years ago trying to convince President Carter to increase our energy R. & D. funding on alternate sources to at least 1 percent of what we pay OPEC each year.

We finally had him up to about $776 million on renewable energy R. & D., so we could accelerate development of some of the alterative energy sources; development that I think is just crucial to the future of this country. Then the new administration came in, chopped this by some $483 million. They cut it by 60 percent. When I talked to Mr. Stockman about this, he just said that if it is worth doing, private industry will do it. But you know, to make a rather far-fetched anology, is like saying that if the Manhattan Project was worth doing, private industry would have done it. We cannot depend on these finite resources forever. Yet we are not doing the things on energy storage, for example which would allows us to make better use of electrical generating capacity we have now and that would enable the use of windpower, tidal power, and solar power. We could make an electric car practical, for instance, with one breakthrough along the lines of the Lawrence Livermore Laboratory, aluminum-air battery. But the administration is chopping those funds.

I think it is about as pound-stupid as anything I can think of for the long-term future of this country that we not concentrate on some of these alternate energy sources to supplement our dwindling supplies of oil and gas.

Yet I don't find alternate energy source development mentioned in your statement. I don't find it mentioned for Ottawa. I went through the Ottawa agenda incidentally, during my preparation for the afternoon meeting with the Foreign Relations Committee in which, I believe, we will also see your smiling face.

Mr. RASHISH. I hope I am still smiling. [Laughter.]

Senator GLENN. I find that out of each one of these previous summit meetings one thing is consistent. That is the call for development of alternative energy sources as one of our long-term means of solving

the energy problems we are now having. Yet I don't find this mentioned in your statement. Nothing is scheduled to come up in Ottawa about it, and the administration chopped the renewable energy R. & D. budget by 60 percent. Does this make any sense? It doesn't to me.

Mr. RASHISH. Look at page 5, if you will, Senator. It acknowledges that increased use of nuclear power and coal can make an important contribution to energy security. These are conventional sources, admittedly. But they are also abundant sources of energy, alternatives to oil where the payoffs in terms of displacement of oil or reduction of dependence on oil are both potentially great and available in the short term.

Senator GLENN. You have to stretch things a little to indicate that coal is some brand new alternative to energy source, I think.

Mr. RASHISH. It depends on what you want to achieve. If you want to reduce dependence on vulnerable supplies of energy, coal is your best bet. You don't have to go to wind power, which is a long way off and uncertain in terms of cost and supply.

Senator GLENN. I agree completely. That new coal development I certainly support very much and I think these are some of the options I wish we had a lot more time to discuss this morning.

Mr. Chairman, what kind of constraints do we have? I was handed a note that I had 3 minutes to go when I was still asking my first question.

Senator PERCY. What is your departure time?

Mr. RASHISH. I have a 10 a.m. date with the Joint Economic Committee.

Senator GLENN. I will stop with my questions at this point and perhaps submit some for the record later on.

Senator PERCY. All right, fine. Mr. Hormats and Peter Borré are staying on. Senator Cohen?

Senator COHEN. Mr. Secretary, as I understand the policy, you are saying that we are going to stockpile oil supplies, we are not going to impose price controls, and if in an emergency our allies have a serious shortfall, we are going to share those supplies with them.

Where is there a statement about our military or defense interdependence? We keep talking about being economically interdependent with our allies. If this interdependence is a reality, why has the United States been forced to bear the major military responsibility for defending the alliance's energy security interests in the Persian Gulf? I believe that this is an area in which we should all be sharing the burden.

Where is there a statement about having Europe, for example, share more equitably in the defense of the Persian Gulf?

Mr. RASHISH. I just alluded to Persian Gulf security very briefly in passing. You have a very large and important question of defense burden sharing throughout the alliance. It is not one that I addressed in my paper.

Senator COHEN. Isn't it appropriate that at the Ottawa Summit we, the allies, make it very clear that we are not simply going to prepare for an oil disruption? We are all going to stockpile, we are going to share all our oil supplies, and we are going to let the price be determined by the market forces. In the meantime, we should insist that allied cooperation in this area extend to defending our mutual interests in the Persian Gulf?

However, I have not recently seen Germany or Japan, for example, or many of the other Nations express much interest in helping to support the U.S. effort to keep these international oil supply lines open.

Wouldn't the Ottawa Summit be a good place to raise that issue?

Mr. RASHISH. I only addressed in brief passing the energy topic of the Ottawa Summit. The Ottawa Summit will not only cover a number of other economic topics, but it will provide an opportunity for discussion of a wide variety of political and security questions. The one you have raised is clearly one.

Senator COHEN. Let me get a little bit parochial. The Pittston Co. has been trying to build an oil refinery in Maine for a number of years.

Aside from the merits or demerits of the project, the Canadians have raised objections about it contending it presents a hazard to their environment since giant supertankers would have to pass through Canadian waters. There is also a proposal by the Canadians to build some rather huge tidal dams in the Bay of Fundy. A number of scientists have predicted that if those dams are built, they will raise the tidal range of the entire northern New England coast, flooding a good deal of marshland, beaches and coastal property.

I would hope that the State Department would take at least some initiative to make sure that there is reciprocity as far as the respective environments are concerned. The Canadians are concerned about their beaches being polluted with oil. We in Maine are concerned about being engulfed by their new tidal projects.

Mr. RASHISH. I had a note about this. I will take judicious note of it as a New Englander myself who goes up there for vacation every summer.

I would hate to see the beaches reduced in size. I am in the embarrasing situation, Mr. Chairman, of its having arrived at 10, but still wanting to stay here.

Senator PERCY. As long as you are leaving such able colleagues.

Mr. RASHISH. That is why I brought them with me.

Senator PERCY. Senator Bradley, do you have one burning question?

Senator BRADLEY. I have one question, Mr. Chairman. Does the administration support the Yamal pipeline?

Mr. RASHISH. It is a difficult question to answer very briefly. The administration is in the process of revising its policy toward the Yamal natural gas pipeline. The policy that is likely to emerge is not one that could be stated simply as yes or no on the pipeline. The problems and issues that are involved in that pipeline are very complex.

Basically, the decision is for our allies and Western Europe and not one that we have complete control of.

Senator BRADLEY. Will this be on the agenda at the summit?

Mr. RASHISH. It may be.

Senator BRADLEY. But you don't have any position?

Mr. RASHISH. As of this moment we don't have a final position.

Senator BRADLEY. When is the summit?

Mr. RASHISH. The summit is Sunday night.

Senator BRADLEY. So you are going to the summit with an item on the agenda for which you don't have a position.

Mr. RASHISH. I answered you, Senator, by saying that the issue may come up at the summit.

Senator BRADLEY. Is it on the agenda?

Mr. RASHISH. It is not identified as a specific item on the agenda, just like many other items which will come up at the summit for discussion and not identified as specific agenda items.

Senator PERCY. Senator Bradley, if you would like to pursue that, why don't you join us, be our guest this afternoon at the Foreign Relations Committee. We would be delighted to have you there. I think the timeframe would be better.

Senator COHEN. Could we have a position this afternoon? [Laughter.]

Senator PERCY. Thank you very much, Mr. Secretary.

We appreciate it a great deal.

Secretary Hormats, the ultimate compliment was trying to steal you away and get you here to the Hill before. We struck out on that, but we became very well acquainted with Secretary Hormats at the time. He has a wealth of experience in the Cabinet, which well qualifies him in the area of international energy policy.

I understand that you followed the Interagency Review of U.S. participation in the International Energy Agency for the State Department. I think it is particularly important that the new administration chose to review our participation in the IEA during its early months in office. Domestically, we seem to be in the process of adopting a new strategy toward energy security, one based on the principles of the market. Therefore, it is appropriate that we examine our international commitments in light of our domestic thinking on energy. We certainly welcome your testimony.

I would like to comment, Senator Glenn, on the free market forces that I believe generally, except in certain areas, ought to operate in synthetic fuels. I can see Illinois pulling right smack dab out of the coal gasification project. They will simply say the market forces today will not justify their huge expenditures in coal gasification research. If that is to be done, that kind of cost has to be borne by the general public and market forces are not going to operate, at least in Illinois.

Senator GLENN. We lost a similar coal gasification project in Ohio when the new administration came in. We tried to get it approved in the previous administration and we were able to keep the interested parties together for sometime before it was canceled. It is now dead, however. That is exactly the kind of thing I have been talking about. If we are going to have some of these alternate energy sources, they are not going to be developed by private industry until the Government supports some of the very basic research. I am not talking about the Federal Government commercializing these things and putting them in filling stations all over the country. But there is very basic research that private industry is not willing to take on, and I think this is a legitimate function for Government to perform.

Senator PERCY. I think there are two best cases for the Ottawa Conference. There can be no promise of the private sector stepping in and doing this at all. Our group will stay together through the end of the year, but I think they will disband. So far there is no inclination to go ahead in synthetic fuels. We have been talking about it for years. It is not going to come about in the private sector.

Secretary Hormats, with that introduction, we are happy to have your testimony.

Mr. HORMATS. Thank you, Mr. Chairman. I will summarize some of the major points of the testimony and ask that the rest be in the record.

Let me just say that first of all, in my judgment, enhancement of energy security—access to and use of energy from dependable sources must be a major objective of this administration and it is an objective which this country shares with all other countries around the world.

For ourselves and many others, particularly the other Western industrial countries, pursuit of energy security has meant first of all reducing our vulnerability to interruptions in the flow of imported oil. Here I think Senator Bradley used the right word, "vulnerability," because that really is the key focus we have to keep in the development of our internal and international policies.

Imported oil has in the past decade proven to be the most unreliable of energy supplies. Repeated interruptions and supply uncertainties have levied a heavy toll on all of us. Employment has been reduced; inflation, uncertainty of investment, a whole array of adverse effects on the U.S. economy.

In addition, interruptions or the threat thereof have major adverse political effects. There is always the temptation for governments to scramble to lock up their supplies with the threat of disruption or in the event of disruption itself. For that very reason, for the economic reasons and political reasons that we face in the next several years, it is particularly important that we continue the momentum to reduce dependence on imported oil and that we continue, indeed strengthen, our efforts, to deal with the problem of vulnerability. Both of these efforts require close cooperation with other major industrial countries, our trading partners.

The IEA is focusing on both elements. There has been a lot of progress in the IEA. The IEA is sort of a mutual prodding society, where each country urges its colleagues to do better and to be more active in reducing import dependence. I think it has been extremely successful in doing so.

When you look at the disarray among the industrialized democracies in 1973–74, and then look at how strong cooperation in this area is now, you realize that it has been a remarkable institution-building feat, and one that I believe serves our country from an economic point of view and perhaps equally as importantly from a security point of view.

Second, of equal importance is the IEA's effort at crisis management. This is an effort which the administration fully supports. The administration made its support known most recently at the ministerial meeting of the IEA held last month in Paris.

With respect to the United States approach to oil emergency, there are certainly principles which we try to keep in front of us. Stated most broadly, of course, our primary aim is just to minimize the extent to which a temporary reduction in oil supplies disrupts our economy or harms our national interest or security. In other words, we would seek restoration of equilibrium between oil supply and demand as smoothly and quickly as possible. Demand must decline or supply must rise back up.

In general, this administration will rely to the maximum extent feasible on normal market forces to restore equilibrium between demand and supply of oil. In our view, price is the most efficient allocator of scarce supplies among potential consumers. It should therefore be the primary instrument of equilibration, particularly where it is reduction in demand which is required.

At the same time, it is appropriate and essential that the Federal Government be prepared to take steps on the supply side. Here I refer in particular to the Strategic Petroleum Reserve. In our view, drawdown of stocks is the most effective measure available to the Federal Government for forestalling a wrenching process of adjustment by the U.S. economy to a major but temporary reduction in oil supplies.

The fill rate of the SPR is today averaging something above 400,000 barrels a day, over the year as a whole we are trying to keep it at a level above 200,000 barrels per day, something on the order of 230,000 barrels per day with the objective of reaching a fill of 750 million barrels by roughly the end of this decade.

The basic reliance on stocks must also be the cornerstone of our international strategy. That is being worked out in the context, as I mentioned, of the International Energy Agency.

There is a formal IEA system designed to deal with IEA supply reductions of 7 percent or more of oil consumption of IEA members as a group for any one particular country. There are both domestic and international elements to this plan.

In a crisis, each member is committed to rapid implementation of a program aimed at restoring equilibrium to its domestic oil market. Member countries have committed themselves to support this program by maintaining oil stocks the equivalent of at least 90 days of imports. Virtually every country is well above that 90-day target.

On top of these supply and stock measures is the international element of oil sharing. The purpose here is to assure that no member country is subjected to overwhelming hardship by an oil crisis because such hardship would undermine national and international security and stimulate panic in the oil market.

The U.S. Government strongly supports the entire IEA emergency system, and stands ready to participate fully in it. To this end, the administration has conducted a review of its ability to fulfill its obligations under the IEA system.

We stand well prepared to comply with the domestic elements of the IEA system; however, the methods which we plan to use for this purpose differ from those espoused by previous administrations.

First of all, we have no intention of ever again imposing a comprehensive system of domestic oil allocation and price controls. Our disastrous experience with such controls during the last decade leaves no doubt on this point. This administration will rely primarily on the price mechanism to effect necessary demand restraint, and is confident that it will succeed.

It is very difficult to develop and operate a very large comprehensive oil allocation and price control system. You, Mr. Chairman and Senator Bradley, have identified some of the reasons in your testimony and in the letter of the bill that you have introduced. These controls do tend in many respects to provide a disincentive to those people who should be stocking to undertake the stocking necessary.

Some controls, if they are poorly planned, may reduce our ability to cope with emergencies, rather than improve it.

Second, we will place much greater emphasis on accumulation of reserve stocks not only to fulfill, but to surpass substantially, our IEA stock commitment, so as to minimize the need for demand restraint in the American economy where the reduction in oil supplies is clearly temporary. I mentioned what we are doing in this area and the progress that has been made.

There is also the sharing obligation which I mentioned earlier. The imminent expiration of the Emergency Petroleum Allocation Act, which provided part of the statutory authority for past participation in the IEA system, has necessitated some rethinking of our strategy in this regard.

The IEA emergency sharing system calls for participation by member governments and their oil companies in international allocation of oil as necessary to provide each IEA member country an equitable share of available international oil flows.

In any given crisis, the United States might be a giver—allocation obligation—or a receiver—allocation right—of IEA-shared oil.

IEA member countries have decided to fulfill this obligation primarily through a system of voluntary offers by oil companies to supply and receive oil, concluding that this is preferable to the alternative of relying on Government-mandated oil movements—although authority for mandatory international allocation is required to back up the voluntary offer system.

Voluntary movements are less intrusive, maximize reliance on the market, and avoid having the Government direct the movement of possibly substantial cargo volumes. They also take advantage of the oil industry's expertise, and its ability to shuffle oil shipments smoothly among destinations.

U.S. firms receive an antitrust defense for participation in the IEA sharing system under section 252 of the Energy Policy and Conservation Act [EPCA]. The possibility of mandatory Government intervention offers them a strong incentive to participate in the IEA system and particularly to offer oil for IEA sharing on a voluntary basis.

In addition, we have under consideration development of a contingency plan for a limited crude oil fair-sharing system to backstop such voluntary offers for activation, should the President deem it necessary to meet our IEP obligations. The aim of this system will be to assure U.S. oil companies that the burden of supplying oil to the IEA sharing system will be shared equitably.

It is the opinion of the Department of Justice that the President has authority to implement such a fair-sharing system under EPCA section 251.

In our planning for a fair-sharing system, we will be focusing on a very narrow system which will not adversely affect decisionmaking and efficiency in the market.

Of course, we might also make some use of oil from the SPR to compensate domestic oil companies for oil offered under the IEA system. However, we do not believe it would be wise to bind the United States to this approach beforehand.

In sum, the United States is itself fully prepared to fulfill its obligations under the IEA emergency system. At the same time, we see

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scope for improvements in that program. I won't go into those except to say that they are in my written testimony and, in fact, they draw on the lessons that we learned—and that Senator Bradley pointed out in his testimony—from the disruptions surrounding the Iranian revolution and the Iran-Iraq war. The big difference between the two events was that, at the time of the Iranian revolution, we were ill-prepared; we had very low levels of stocks.

During the period following the Iran-Iraq war, stock building had taken place and we were much better able to cope with the disruptions through stock drawdowns. The IEA played an important role in encouraging those stock drawdowns.

We have also begun to take a look at what we would do in the event of a disruption in supply or shortfall of supplies which does not yet meet the 7-percent target.

There is a broad recognition that you don't need to intervene in as formal a way in the event of this subtrigger situation as you would in the event of an all-out shortfall which affects a lot of countries.

We are in the process now of consulting extensively with the oil companies in order to deal with this particular problem and with the situation in which one country in the IEA finds its supplies cut by more than 7 percent, but in which there is a disinclination to invoke the entire IEA sharing system in order to deal with that one country's problems.

We are taking a look at that in conjunction with the companies and in the context of the IEA.

Let me conclude by reinforcing the commitment of this administration to support the IEA, to work with the companies, the U.S. companies, to deal with the problems that could be facing us over the next several years. I fully agree with the point that if you look at the odds, the odds are we are going to be suffering from some type of disruption over the next decade. We don't quite know what it will be. Different disruptions require different responses, but in general we are committed to international cooperation. Our basic objective in preparing for such disruptions is to have large stocks to urge other countries to have large stocks, and to work out an arrangement for consulting with our partners so that we can deal with crises, not just crises where the 7-percent target is reached, but also smaller crises, crises that apply to one particular country, rather than all the IEA countries.

Thank you, Mr. Chairman.

Senator PERCY. Thank you very much indeed. We will note for the record that when that crisis comes, if it does, it might have been averted in several instances because when someone looks at the political effect and the economic effect, now that we are really starting to fill those reserves, the existence of it so dampens the effect of the political action that might be taken that that oil sitting there in that reserve is a great insurance policy.

We will price out sometime how much Senator Bradley has saved the U.S. Government. Like works of art, we appreciate it over a period of time. And this is the time to fill it. It has been a very, very momentous action.

Mr. HORMATS. We could pass to Dave Stockman the credit for the R. & D. budget.

Senator PERCY. That is right, recycle it back.

Peter Borré, we are delighted to have you here.

I understand you do not have a prepared statement. We would certainly like to have any introductory comments DOE may have. The Department of Energy has an important role to play in the U.S. energy security strategy.

To put it in military terms, it is like a peacetime Navy. You wonder of how much value it is, but suddenly when you have a crisis, you sure need it. When the going gets tough, as it will again, I think, DOE's preparedness and planning that is being done now will pay off. Do you have any comments you would like to make now? Otherwise, we will go ahead and question you.

Mr. BORRÉ. I will be glad to respond to questions.

Senator PERCY. I would like the permission of my colleague, because Senator Bradley did not have an opportunity to ask questions of Secretary Rashish and I did, to defer to him and then go down the regular order. I will follow at the end of my colleagues.

Senator BRADLEY. I want to thank the chairman and in my haste to ask Mr. Rashish a question, I forgot to formally thank you for allowing me to join the committee today.

Mr. Hormats, on pages 8 and 9 of your testimony, you talk about developing a contingency for a fair-sharing system and in the next sentence you go on to say its purpose is to assure companies that the burden of supplying oil to the IEA-sharing system will be shared equitably.

I would like you to explain in greater depth what specifically a fair-sharing system is, give a scenario of the disruption, how that fair-sharing system would work.

Mr. HORMATS. Under the IEA, there could well be a situation in which company X was asked to divert a ship which was coming to the United States, to, say, the Netherlands, taking the example that could have occurred 8 or 9 years ago, in which case company X, the American company, might find that a particular area to which that ship was originally destined is left with less oil than it had anticipated having. Let's say the area is New Jersey. [Laughter.]

In that instance, that company would want to be able to insure that it could have, temporarily, supplies of oil from other companies to fulfill that need in gas stations in New Jersey for a period of time. There would be sort of an offer-system where companies which had oil available would make oil available to the company which had, at the urging of the IEA, diverted the ship to the Netherlands. Our judgment is that it could be done in a very simple way and that it would not require the same elaborate infrastructure that would be required for the broader sort of sharing, under broader allocation.

Senator BRADLEY. Somehow this is different from allocation?

Mr. HORMATS. This is different from allocation in a number of respects. One, it does not require dealing with product, only with crude oil. Two, it is only done in order to help companies which have supplied oil to the IEP system temporarily get oil to meet their own customers' requirements.

Senator BRADLEY. So what specifically is Government going to do? It is hard for me to understand. There you are, sitting in the State Department, it occurs, ships are going, it is easier to divert to Germany.

What do you do? What does the Government do? How are you involved in this fair-sharing system? How is it different than just letting the market take care of it?

Mr. HORMATS. I hesitate to attempt to answer your question in detail. I have never been through the details of running a fair-sharing system. Maybe Mr. Borré has. But I would surmise that you would have a list of companies that are suffering as a result of meeting the obligation.

Senator BRADLEY. They are suffering because——

Mr. HORMATS. Because the ship that they expected would come to New Jersey is being diverted to Holland. Therefore——

Senator BRADLEY. Why would they suffer? New Jersey is suffering, but the companies are not suffering.

Mr. HORMATS. Because the company would not have that oil to distribute to its gasoline stations, for instance.

Senator BRADLEY. But it is selling the oil.

Mr. HORMATS. Of course it is. Ultimately this is not to subsidize the company, it is simply to enable that company's gas stations, let's say, to get a certain amount of oil to cover the shortfall that would have resulted from the fact that the ship was diverted to Holland.

Mr. BORRÉ. If I could add a point on the offshore dimension, I am advised by lawyers, and you appreciate, Senator, there is a world of technical and legal complexity here, that words like "equitable rate of return" and "fair sharing" will continue.

Concepts such as fair rate of return and equitable sharing are, as you pointed out, I think, in your opening question, rather vague and general. If one tries to make them operational, one can get into very difficult detail.

One dimension of the fair sharing arrangement—it is very hard to get specific before the fact of an actual disturbance—is to also have some equity among those oil companies moving oil to the United States. In the computation of the IEP formula under the hypothesis at hand, the United States has supply obligation and for logistical or scheduling reasons, a particular company X serving New Jersey or Maine is in the position at that time to meet a U.S. requirement that needs to be made whole vis-a-vis other companies that would otherwise continue to move untouched volumes of oil into the United States.

There is that dimension of fair sharing, as well as the domestic policy.

Senator BRADLEY. It sounds to me like the company, that was moving oil to Maine or New Jersey because they have this other obligation, have to be made whole, to take, to account for the fact that they are fulfilling an international obligation. Is that sort of an international entitlement program?

Mr. BORRÉ. The term "made whole" is perhaps a term of art. Let me take that back, and suggest that one is looking for equity among the companies that are at that time bringing oil to the United States, rather than putting the entire burden of the U.S. political obligation on a particular company that happens to be moving oil from an undisrupted source to the State of New Jersey.

Senator BRADLEY. One further question. How do you price that oil? Why, tell me why, the receiving country wouldn't disagree with the selling company on what the price of oil should be and why wouldn't

this whole mechanism be all tied up in litigation for an endless period of time and no oil be allocated at all? Tell me why not.

Mr. BORRÉ. If I surmise that the question is directed at me, first of all——

Senator BRADLEY. Both of you.

Mr. BORRÉ. I don't think that a single individual or entity at the Government level is going to be in the position to set a price schedule or a reference price against which these transactions have to materialize. As I think you know, during the simulation tests that have been run, and in the real world during conditions of market tightening, the disputes and the differences between the potential buyer and the potential seller, have been very acute. It is my judgment that at best you could have a process where buyer and seller have to continue to talk to each other and attempt to reach a consensus, but as a matter of policy, we do not support the determination of the price formula or categorical pricing principles to be used during an emergency. That would be counterproductive.

Senator BRADLEY. So then how do you force the oil company to allocate at what price?

Mr. BORRÉ. In the way transactions——

Senator BRADLEY. How do you set the price? What if you have a disagreement? You don't have anything, you don't contemplate having anything in place to resolve disputes over the price of oil that is allocated under the IEA mechanism; is that right, nothing in place?

Mr. BORRÉ. There is a process.

Senator BRADLEY. What is that?

Mr. BORRÉ. A Dispute Settlement Center has been established to operate when the formal allocation system of the IEA system is triggered. I have to add, Senator, that that is no more than a process. There is not a DOE or an IEA secretariat-devised prevailing price based on which buyers and sellers have to close transactions. You are putting an awful lot of emphasis on one of the most difficult and contentious aspects, particularly in the subtrigger crisis, where a particular country or region has been disrupted but oil is flowing elsewhere. You have to consider whether, as in previous IEA cases, an apparent tightening of supply to country X might not be a self-inflicted hotfoot because the product ceiling regulations in that country have the effect of deterring oil traders, or companies from moving oil into that jurisdiction.

Senator BRADLEY. I am sorry, Mr. Chairman. This sounds to me like it is a marriage counseling center, a dispute center where we get together and decide what the oil price will be. Will that be part of the administration's proposals as to what should replace EPAA on September 30?

Mr. BORRÉ. Senator, I am not in the position to comment on replacing EPAA. But I would say with respect to pricing in the IEA context, that the administration will continue to follow the practice from previous administrations, of not supporting price formulas but at best getting an international marriage broker arrangement.

Senator PERCY. Thank you very much.

Senator Glenn?

Senator GLENN. Thank you, Mr. Chairman.

Just following up on Senator Bradley's comments here, the purpose as I understand it, of what you call fair sharing, is to shuffle oil from one spot to another, or to influence its movement from one place to another. To me that is allocation, or rationing by another name. It doesn't have any coupon distribution associated with it but it is allocation, no matter how you cut it. It is trying to determine where that oil is going to go. So I think your total allegiance to the free market system, which I support very much, has an element of wishful thinking. I question whether in a real honest to goodness fuel crisis, where people are really hurting for fuel, if we are going to be able to get by that easily.

I wouldn't be against your fair sharing plan, but as I understand it, domestically at least you are absolutely against and will not propose in any fuel emergency foreseen right now any rationing system; is that correct?

Mr. HORMATS. At this point, what we are discussing is the more limited element of what we need to fulfill U.S. obligations to the IEA. There is a broader exercise looking at domestic adjustment to an oil supply disruption.

Senator GLENN. But an allocation scheme would be necessary to back up IEA and our commitments under it as to how we use our fuel domestically. That is why I bring it up.

Mr. HORMATS. I would say, without prejudging the final decision, that there is a strong position against domestic rationing, as you indicated.

Senator GLENN. That gets very difficult because we can't separate out what we do domestically from what we do internationally under the IEA. It gets very sticky. When fuel is necessary for the livelihood of some people here, just to say that they will all be under the market system, and maybe go bankrupt because of rising prices seems inequitable to me. There has to be some mechanism to make the scheme more equitable. I don't see it so far in the administration proposal. Are there any plans to make it more equitable?

Mr. HORMATS. Over the last 1 or 2 months, one of the Cabinet Councils has been conducting an analysis of just this issue, how one would respond in an emergency with respect to domestic allocation. No final decision has been made on that.

Senator GLENN. When will there be a final decision?

Mr. HORMATS. It is hard to say. The basic elements of this examination were completed about 2 or 3 weeks ago. I would anticipate a final decision relatively soon. The major analysis has been done. I can't give you a certain date.

Senator GLENN. What is your authority to promulgate this fair sharing system under EPCA, section 251? Does the President now have the authority to do that, or do we need to pass additional legislation to give him that authority?

Mr. HORMATS. Justice has indicated in an informal interagency piece of paper that the authority already exists in current statute.

Senator GLENN. I was not aware of that ruling. Was the ruling formally written out or was it verbal?

Mr. HORMATS. We have been advised by Justice in a piece of paper that they prepared at our request that this was the case, that there is such authority.

Senator GLENN. Is that piece of paper you have from the Department of Justice adequate to let you go ahead and operate a system like this—a system which impacts not only domestic but international law?

Mr. HORMATS. Perhaps the best thing we can do is to provide the Justice opinion to you and see if we can ask Justice to spell it out in greater detail.

Senator GLENN. I would like for you to do exactly that and ask the Department of Justice for a formal opinion on this. I would also request that this subcommittee be given a copy of the Justice opinion so that we can make our own independent legislative branch judgment on whether we feel there is adequate authority for the President to proceed under this or not.

Mr. HORMATS. We will do just that, Senator.

[The information referred to follows:]

U.S. DEPARTMENT OF JUSTICE,
OFFICE OF LEGISLATIVE AFFAIRS,
Washington, D.C., September 1, 1981.

Hon. James A. McClure,
Chairman, Committee on Energy and Natural Resources, U.S. Senate,
Washington, D.C.

Dear MR. CHAIRMAN: Pursuant to your letter to the Attorney General dated August 5, 1981, which was forwarded to my office, the Department staff has prepared a legal memorandum concerning the President's authority to allocate and control the price of crude oil and petroleum products. Specifically, they have focused on two primary issues: (1) whether after the expiration of the Emergency Petroleum Allocation Act ("EPAA") on September 30, 1981, the President will have acequate legal authority to fulfill the United States' obligations under the International Energy Program ("IEP") and (2) what other statutory powers may the President draw upon to control domestic allocation and pricing of crude oil and petroleum products in the event of a major shortfall in oil supplies. A copy of that memorandum is enclosed.

The conclusions reached in this memorandum may be summarized as follows:

1. Even after the expiration of the EPAA, the President will have clear legal authority to satisfy United States obligations under the IEP. Moreover, the President will have adequate legal authority to impose a domestic "fair sharing" program if such a program is necessary to ensure that the United States is able to meet any international allocation obligations it may have under the IEP.

2. The statutes remaining after expiration of the EPAA, while numerous and varied, will not give the President the authority to impose a broad scale domestic and pricing system of the type now authorized by the EPAA.

I hope that this information is helpful.

Sincerely,

ROBERT A. MCCONNELL,
Assistant Attorney General,
Office of Legislative Affairs.

Enclosure.

U.S. DEPARTMENT OF JUSTICE,
Washington, D.C., August 31, 1981.

MEMORANDUM

To: Carol E. Dinkins, Assistant Attorney General, Land and Natural Resources Division.
From: Kay Oberley, Richard Lazarus.
Subject: Report on Presidential authority to allocate and control price of crude oil and petroleum products.

At your request, we have been reviewing the extent of the President's present authority to control the allocation and price of crude oil and petroleum products and his remaining authority to do so after the Emergency Petroleum Allocation Act of 1973 ("EPAA") expires on September 30, 1981. Specifically, we have focused

on two primary issues: (1) whether after the expiration of the Emergency Petroleum Allocation Act on September 30, 1981, the Presidnet will have adequate legal authority to fulfill the United States' obligations under the International Energy Program; (2) what other statutory powers may the President draw upon to control domestic allocation and pricing of petroleum products in the event of a severe supply interruption. The purpose of this memorandum is to present to you in summary fashion a report of the results of our research and our legal conconclusions.

I. Meeting United States Obligations Under the IEP Agreement

The IEP Agreement is designed to avoid the problems that resulted from the Arab Oil Embargo during 1973–74 of crude oil supplies to certain countries, including the United States. Principal among these problems was Increased competition among consumer countries for the reduced amount of oil available during the embargo period. The Agreement's primary purpose is to increase coordinated action among the 21 IEA member countries in order to decrease their vulnerability to supply disruptions and dependence on imported oil. The Agreement contains four principal substantive obligations: (1) the maintenance of emergency oil reserves (Arts. 2–3); (2) a program of contingent oil demand restraint measures (Art. 5); (3) a program of international sharing of oil supplies among signatory countries (Art. 6–24); and (4) the establishment of an information system on the international market available to the International Energy Agency ("IEA") (Arts. 25–40).

Under the oil-sharing portion of the Agreement, the United States may, during a severe oil supply interruption, have an obligation to allocate oil to another participating country. Specifically, Articles 6 and 7 of the Agreement clearly obligate the United States to take "necessary measures" to ensure that when "the sum of [the country's] normal domestic production and acutal net imports available during an emergency exceeds its supply right * * * [1] [the country] shall have an allocation obligation which requires it to supply, directly, or indirectly, the quantity of oil equal to that excess to other [P]articipating [C]ountries." Notably, there are two types of emergencies which serve to "trigger" or activate a nation's oil sharing obligations under the IEP Agreement. A selective trigger occurs when one or more participating countries suffer a 7 percent or greater shortfall of available supplies measured against final oil consumption during a specified base period. See Art. 17. Under such circumstances, the other countries "may meet their allocation obligations by any measures of their own choosing, including demand restraint measures or use of emergency reserve." See Art. 8. However, when 21 IEA member countries as a whole suffer a 7 percent or greater shortfall—known as a "general" trigger—no such discretion exists and the sharing program is activated. See Arts. 13, 14.

Although theoreticaliy, the United States could avoid any allocation obligations by lowering its imports, it may be unrealistic to assume that the United States can keep its import levels so low that a situation will not arise in which we have an in which we have an obligation to allocate to another country. In particular, such an assumption may be generally impractical since obligations are calculated under the Agreement through a complex formula that considers, *inter alia*, the recent level of imports of the United States and other countries. Thus, not only would we have to anticipate a shortfall and lower our imports to a level at which we would have no obligation, but we would have to anticipate factors outside our control, including the imports of other countries and the comparative amount of supplies lost by the United States and other participating countries. Such a task may be infeasible.

In any event, the short, legal answer to the first question is that the United States has adequate authority to meet its formal IEP Agreement obligations pertaining to international oil allocation wholly apart from the EPAA. Section 251 of the Energy Policy and Conservation Act (EPCA), 42 U.S.C. 6271, provides the President with authority to meet our obligations under the IEP Agreement "insofar as such obligations relate to the international allocation" of crude oil and petroleum products. The provision explicitly authorizes control of allocation

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[1] Supply rights and allocation obligations are calculated according to a complex formula established by the IEP Agreement. In determining these rights and obligations the formula assumes that the participating countries have achieved the required demand restraint levels and emergency reserve drawdowns. See Articles 5, 7 cl.(1), 7 cl.4, 7 cl.5, 8, 13, 14, 17.

and price. In addition, Section 252 of EPCA, 42 U.S.C. 6272, by providing a limited antitrust defense, allows oil companies to meet any obligations this nation may face under the IEP Agreement through voluntary agreements pertaining to international oil allocation.[1a] It is generally accepted that such voluntary measures are vastly preferable to a government mandate. Only if those agreements are not adequate to satisfy U.S. obligations would the President's broad authority under Section 251 be used. Whether supply reallocations are voluntary or mandatory, the expiration of the EPAA on September 30, 1981, does not affect the United States' ability to meet its formal IEP obligations.[2]

The first question you posed, however, is really more complicated than whether the President has authority to mandate international oil allocation if required by the IEP. As noted, he clearly does. The real problem is what authority does the President have or require to deal with *domestic* disruptions that might occur as a result of a U.S. oil company's diverting its domestic supplies to another IEP country. This is at least as much a question of policy as of law.

First, the IEP does not require, as a strict legal matter, that the United States have authority to control the allocation or price of oil domestically in order to ensure that those oil companies which meet United States obligations by allocating oil destined for domestic consumption do not suffer competitively as a consequence. The IEP Agreement does, however, strongly support the development of such a "fair-share" domestic allocation regulatory program (Art. 9 cl. 3 & cl. 4) Moreover, many believe that such a program may be "necessary," as a practical matter, for the United States to meet its IEP obligations.

This latter belief is based on the contention that not only as a matter of policy but additionally as a matter of experience, the international oil sharing program cannot work without the voluntary cooperation of the major oil companies. To date, those companies have provided essential expertise, information, and advice, without which the program could not function. Several tests of the system have been made, but none has ever been attempted assuming a scenario without their cooperation.

Assurance of the oil companies' continuing cooperation, however, appears to depend on our government being able to assure those participating companies that they will not suffer competitive losses by cooperating. This conclusion was publicly expressed by the Federal Trade Commission—which like the Antitrust Division is responsible for monitoring oil company participation in the Agreement—in its recent Tenth Annual Report to the Congress and the President, 22 (April 1981) and by the Department of Energy in a recent memorandum from its General Counsel to the Senate Committee on Energy and Natural Resources. It is also substantiated, we understand, by the results of the third test of the IEA international oil sharing agreement, conducted last fall, in which oil companies reportedly refused to make voluntary offers without assurances that a domestic fair system was in place. Thus, there is arguably a need for legal authority to establish a fair-share system of domestic allocation and price control that empowers the President to redistribute supplies domestically in a manner that will equalize the burden of international allocation among all the oil companies.

The second underlying policy question is whether additional Presidential authority to control allocation and price of crude oil and petroleum products is desirable to address uneven distribution in supplies among regions and end-users that may occur as a result of an IEP emergency or other similar severe energy supply shortage.[3] Notably, this concern is of a different nature than the need for "fair-share" authority because it does not involve authority that the country may need, as a practical matter, to meet its international obligations. Rather it poses more directly a policy issue of whether such authority should be provided to address uneven distribution of supplies that may occur.

[1a] This limited antitrust defense expires on September 30, 1981.

[2] Pursuant to its authority under Sections 251 and 252 of EPCA, DOE has issued and proposed standby regulations providing for mandatory international oil allocation and, most recently, a plan for implementing the IEP Agreement through voluntary oil company agreements. See Standby Mandatory International Oil Allocation Regulations, 44 Fed. Reg. 27,972 (May 14, 1979); Plan of Action to Implement the IEP, 46 Fed. Reg. 26026 (May 8, 1981). Notably, however, at the present time, the purportedly "manadatory" allocation regulations are not at all mandatory. As presently written, if an oil company under a federal, mandate to supply oil to another country cannot reach an accord with that country concerning such items as price, the company is not required to make the order. 10 C.F.R. 218.10(c) (1980). The present regulations do not provide any way to resolve a price dispute and, consequently, the opportunities for an oil company to circumvent a federal mandate are theoretically great.

[3] During a recent hypothetical test of the IEP system last fall, significant differences in the amount of available supplies were estimated to have occurred between different regions of the country.

II. EPAA AUTHORITY EXPIRING ON SEPTEMBER 30, 1981

The EPAA presently provides the President with broad authority to regulate the domestic allocation and price of crude oil and petroleum products. Indeed, when originally enacted, the EPAA directed the President to issue such regulations.[4] It was only more recently that Congress made the President's authority discretionary.[5] Pursuant to EPAA, DOE had promulgated standby regulations to provide any needed allocation and price controls in an emergency.[6] These regulations are available in an emergency to address both the oil companies' "fair-share" allocation concerns and the concerns of regions and certain end-users who nonuniformity in the distribution of energy supplies in scarce times. The EPAA and those regulations, however, are not effective after September 30, 1981,[7] which leads to the next question of what Presidential authority to control price and allocation domestically will remain after that date.

III. PRESIDENTIAL AUTHORITY TO CONTROL DOMESTIC PRICE AND ALLOCATION OF CRUDE OIL AND PETROLEUM PRODUCTS AFTER THE EPAA EXPIRES ON SEPTEMBER 30, 1981

Apart from the EPAA, numerous statutes arguably provide the President with authority to control price and allocation of crude oil and petroleum products in certain circumstances. The sum of these statutory authorities, however, is neither as broad nor as easy to exercise as the EPAA. The differing limitations placed by Congress upon the authority in those statutes, including purposes that must be served and various Presidential findings that must be made, mean that most likely several combinations of statutory authorities would have to be utilized, and, even then, certain types of control may be lacking. In addition, application of the statutes to circumstances not specifically considered by Congress at the time of the various statutes' enactments will require liberal judicial construction of the authority conveyed to the President. Consequently, until such time as the statutes are actually applied and judicially tested, a modicum of uncertainly will persist about the scope of authority that actually exists.

A brief description of each of the available authorities, in order of significance, is provided below. Among the authorities that do exist, EPCA, the Defense Production Act of 1950 ("DPA"), as amended,[8] and the Trade Expansion Act of 1962 ("TEA"), as amended,[9] provide the President with the most substantial authority over crude oil and petroleum products. Less significant authorities for control include the International Emergency Economic Powers Act of 1977 ("IEEPA")[10] and the Emergency Energy Conservation Act of 1979 ("EECA").[11] Finally, numerous miscellaneous statutes exist which provide the President with selective allocative controls such as the Export Administration Act of 1979,[12] the Powerplant and Industrial Fuel Use Act of 1978,[13] the Mineral Lands Leasing Act of 1920,[14] and the Outer Continental Shelf Lands Act, as amended.[15]

1. EPCA

Although Section 251 of EPCA clearly provides for international allocation of crude oil and petroleum products to meet IEP obligations, the statute is also susceptible to an interpretation that the President has authority under that statute to control domestic allocation and prices if necessary to meet our international oil sharing obligations. The statute provides that the President may require oil companies to "take such action *as he determines to be necessary*" to meet our IEP obligations "insofar as such obligations relate to the international allocation of petroleum products." The critical limiting factor, therefore, is not simply what is in

[4] EPAA § 4(a), 15 U.S.C. 753(a).
[5] EPAA § 18, 15 U.S.C. 760g. Utilizing that discretion, President Reagan, with limited exceptions, terminated the oil price and allocation program on January 28, 1981. E.O. 12287, 46 Fed. Reg. 9,909 (Jan. 30, 1981). A request for a preliminary injunction blocking that Executive Order was recently denied by a federal district court. *Metzenbaum* v. *Edwards*, No. 81-0405 (D.D.C., March 4, 1981).
[6] Standby Reg. 211-1, 10 C.F.R. Pt. 211, Subpart L, App. A (1980), Mandatory Crude Oil Allocation and Refinery Yield Control Programs, amended by 45 Fed. Reg. 55,378 (August 19, 1980); Standby Reg. 211-2, 10 C.F.R. Pt. 211, Subpart L, App. A. (1980), Product Allocation Regulations, 44 Fed. Reg. 3,928 (January 18, 1979).
[7] 15 U.S.C. 760g.
[8] 50 U.S.C. App. 2061 *et seq.* It has rountinely been extended every two years since its original enactment in 1950 as Pub. L. No. 81-774, 64 Stat. 798 (1950). Notably, it, like the EPAA, expires on September 30, 1981.
[9] See 19 U.S.C. TEA was originally enacted as Pub. L. No. 87-794, 76 Stat. 872 (1962).
[10] 50 U.S.C. 1701-1706. The IEEPA was originally enacted as Pub. L. 95-223, 91 Stat. 1626.
[11] 42 U.S.C. 8501 *et seq.* The EECA was enacted as Pub. L. 96-102, 93 Stat. 757.
[12] 50 U.S.C. App. 2401 *et seq.*
[13] 42 U.S.C. 8301 *et seq.*
[14] 30 U.S.C. 181 *et seq.*
[15] 43 U.S.C. 1801 *et seq.*

fact "necessary" to meet those obligations, but even more broadly, what is the scope of the President's authority to determine what is necessary. Thus, although the President clearly can, pursuant to Section 251, mandate that an oil company allocate oil internationally, it may well be also within his discretion to determine that he can only do so if he also orders domestic reallocations to redistribute the loss of that company's oil. Alternatively, the President might determine that the only way, as a practical matter, to meet our obligations is through voluntary corporate agreements, and to have such agreements, it is "necessary" to have a fairshare domestic allocation program to offer those companies.

A court would be hard-pressed to overturn such a Presidential determination of necessity if worded within such strict bounds, Indeed, the Justice Department could make a strong argument, likely to prevail, that such a Presidential decision was nonreviewable as committed to the President's discretion by law. We recently made an analagous argument in *Colon* v. *Carter*,[16] with regard to a similarly-worded congressional delegation of power to the President to handle the Cuban-Haitian Refugee problem, and to exempt certain federal refugee facilities from federal environmental statutory requirements, and prevailed. Notably, in both that case and this matter, the revelant statute provides for some congressional review of the President's determination.[17] In *Colon* v. *Carter*, the First Circuit found such congressional review supportive of a ruling of judicial nonreviewability. See generally *Chicago & Southern Airlines* v. *Waterman S.S Corp.*, 333 U.S. 103 (1948); *United States* v. *Curtiss-Wright Export Corp.*, 299 U.S. 304 (1936). The legislative history of EPCA appears to be silent on the question.[18]

Our conclusion is that the judiciary would likely sustain a Presidential determination that a limited fair-share allocation program was necessary to make the IEP program work. There is ample evidence that the Agreement assumes that the participating countries will have such a system, even if the Agreement does not formally require it. It appears that all the other participating countries have complementary domestic programs. Our conclusion that the judiciary would sustain the President's determination of necessity is bolstered by the fact that a court would be reviewing the President's action in the context of a worldwide emergency. This does not mean, however, that ELCA § 251 can be relied upon to address uneven distributional impacts among regions or end-users caused by meeting IEP obligations.

Other significant provisions of EPCA include the establishment of the Strategic Petroleum Reserve (SPR) pursuant to Sections 156 and 158.[19] According to those provisions, the oil in these reserves is available to meet U.S. obligations under the IEP agreement or for use in a "severe supply interruption." [20] Under this provision the scope of the President's authority may be narrower in one sense, since it pertains only to SPR oil, but it also is broader in that he clearly has domestic allocation authority. There is not only arguably authority to allocate to the extent required by IEP obligations, which as before may include domestic allocation, but there is additional explicit authority for domestic allocation when there is a finding of a "severe supply interruption." It might be worthwhile to consider at greater length the usefulness of this authority with respect to a fair-share system or, more broadly, uneven supply distribution among regions or end-users that might occur in times of shortage. Notably, SPR reserves could theoretically be utilized to aid in this country's meeting of its international oil allocation obligations under the IEP. In any event, SPR drawdown and distribution must be in accordance with a distribution plan submitted to Congress

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[16] 633 F. 2d 964 (1st Cir. 1980).

[17] Under EPCA §251 (b) (1), the President must transmit any rule he issues along with a Presidential finding of an IEP emergency to Congress, 42 U.S.C. 6271 (b) (1).

[18] In contrast, the legislative history concerning the applicability of the antitrust defense provided by EPCA §252 to any voluntary agreements involving domestic allocation states in no uncertain terms that no such immunity applies. The meaning of this legislative history vis-a-vis Section 251 is unclear since it could be read either as indicating that Section 251 similarly applies only to international allocation or alternatively that Congress feared any domestic agreements and preferred that any domestic allocation be handled by government regulation, perhaps pursuant to Section 251.

[19] 42 U.S.C. 6236, 6238. Other more limited EPCA programs provide for the development of a rationing contingency plan and an energy conservation contingency plan. See 42 U.S.C. 6261, 6262, 6263. The utility of the former is sharply curtailed by Congress' extremely narrow definition of circumstances appropriate for its implementation, see 42 U.S.C. 6261(d)(3), and the fact that it is due to expire on September 30, 1981. The latter is primarily a means of implementing demand-restraint measures.

[20] A "severe supply interruption" is defined by EPCA § 3(8), 42 U.S.C. 6202(8) as:

> A national energy supply shortage which the President determines (A) is, or is likely to be, of significant scope and duration, and of an emergency nature; and
>
> (B) May cause adverse impact on national safety or the national economy; and
>
> (C) Results, or is likely to result, from an interruption in the supply of imported petroleum products or from sabotage, or an Act of God.

and not vetoed by one House of Congress.[21] DOE has issued regulations providing for the allocation of SPR reserves in the event of a drawdown.[22]

2. Defense Production Act of 1950 ("DPA")

DPA offers another source of Presidential authority over crude oil. Section 101(a) of the DPA provides the President with authority "to allocate materials * * * in such a manner and to such an extent as he shall deem necessary or appropriate to promote the national defense."[23] Section 2 of the Act specifically provides that "energy" is a "strategic and critical material." Thus, the President arguably has authority to allocate both crude oil and petroleum products under under this provision. Like EPCA, his discretion is broad, authorizing him to act as he deems "necessary." Although the language seems susceptible to an interpretation allowing implementation of price controls, there is adverse legislative history for such a ruling. The Act originally empowered the President with authority to impose price controls, but later withdrew it in 1953.[24]

The President's authority under this provision over oil is limited not only by the fact that his action must "promote the national defense" [25] but by the additional requirement in Section 101(b) that his authority cannot be used to control general distribution in the civilian market unless the oil is a "scarce and critical material essential to the national defense" and the national defense needs cannot be met without creating "appreciable hardships."

The effect of this limitation depends ultimately on the meaning of the term "national defense." The term is narrowly defined by statute,[26] but leaves unanswered the question whether needs such as those of defense contractors should be considered. If such considerations were appropriate, then the effect of this limitation would be markedly smaller. There is, however, recent congressional intent opposed to interpreting the statute broadly to authorize a comprehensive general energy allocation program.[27] On the other hand, there is also legislative history which supports the proposition that a domestic distribution plan involving factors such as end-use or inventory restrictions may be established in the absence of Section 101(b) findings if it falls short of a "general distribution" plan.[28]

In any event, the authority provided under the statute would not necessarily vest as a result of the activation of our country's IEP obligations. Situations certainly could arise where the United States would have international allocation obligations but national defense demands for oil were not the source of "appreciable hardship" in the civilian markets. Consequently, Section 101(b) of the DPA would provide authority neither for the President to establish a domestic "fair-share" program nor to address uneven distribution in supplies among regions or end-users. Only if the two circumstances happened to overlap would the DPA provide relevant authority. Finally, as previously noted, the DPA is presently scheduled to expire on September 30, 1981. See note 11, *supra*.

Section 101(c) of the DPA provides additional authority to the President but it is even more limited. Pursuant to that section, the President may require the allocation of materials "in order to maximize domestic energy supplies" if he makes certain findings pertaining to the need of the materials for either the exploration, refining, or transportation, or conservation of energy supplies or the construction and maintenance of energy facilities.[29] At the outset, there is some controversy concerning whether energy is even a material within the meaning of this statutory provision. The statute's legislative history appears to be primarily concerned with remedying critical shortages of materials such as pipes, pumps, and roofbolts, which were creating severe bottlenecks in the production of energy.[30] Even the preamble to DOE's implementing regulations for Section 101(c) suggests that oil if not a "material" within the meaning of this provision.[31] Notably, the fact that, in 1975, Congress amended the statute explicitly to designate "energy" as a scarce and critical material is of no help because Congress also amended Section 106 of the

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[21] See 42 U.S.C. 6241(b).
[22] 49 Fed. Reg. 55,374 (August 19, 1980) (codified at 10 C.F.R. Pt. 220).
[23] 50 U.S.C. App. 2071(a).
[24] See H.R. Rep. No. 516, 83d Cong., 1st Sess. reprinted in [1953] U.S. Code Cong. & Admin. News 1747 at 1750, 1757.
[25] See S. Rep. No. 1599, 82d Cong., 2d Sess. reprinted in [1952] U.S. Code Cong. & Admin. News 1789, 1795–1796.
[26] Sec. 702(d), 50 U.S.C. App. 2152(d).
[27] See H.R. Rep. No. 165, 96th Cong., 2d Sess. 23 reprinted in [1980] U.S. Code Cong. & Admin. News 3847, 3969, (Congress did not accept House proposal to broaden definition of "national defense" in terms of energy).
[28] S. Rep. No. 2237, 84th Cong., 2d Sess. reprinted in [1956] U.S. Code Cong. & Admin. News, 2930, 293
[29] 50 U.S.C. 2071(c).
[30] See S. Rep. No. 26, 94th Cong., 1st Sess. 34 (1975).
[31] 43 Fed. Reg. 6, 210 (February 14, 1978).

Act to provide that such a designation could not be interpreted as having any effect on the President's authority under the statute.[32]

In any event, even assuming that oil is a 'material" within the meaning of Section 101(c), the provision still provides little authority. Although national defense need not be promoted, the limitation that energy supplies must be maximized is formidable. At best, the President could construe this as allowing the allocation of crude oil to energy facilities that need it to produce more energy. A plausible argument could be made that allocation of crude oil or even petroleum products to efficient end-users was authorized by the statute's reference to "conservation," since conservation maximizes energy supplies as a practical matter, but such a broad construction might be rejected by the courts because it does not appear to be supported by any legislative history of which we now know.[33] Our conclusion, based on limited research, is that Section 101(c) Presidential authority seems slight and not capable of providing authority over allocation or price of crude oil and petroleum products as might be necessary to address domestic problems triggered by an IEP emergency or a domestic energy shortage.[34]

3. Trade Expansion Act of 1962 ("TEA")

TEA provides the President with yet another form of authority over crude oil and, to a certain extent, petroleum products. Section 232(b) provides the President with authority to restrict imports of articles to the extent necessary to protect national security. In contrast to the other provisions discussed above, Presidents have often exercised this authority and have usually been sustained by the courts. In recent decades, Presidents have invoked national security successfully to establish quotas on volumes of imports, including oil,[35] to establish license-fee systems,[36] to limit imports from certain countries,[37] and to allocate oil imports exempt from import fees to certain refineries.[38]

Courts have stated that TEA confers Presidential authority in the "broadest terms." [39] The Supreme Court in *Federal Energy Administration* v. *Algonquin SNG, Inc.*, 426 U.S. 548 (1976), upheld the President's authority under TEA to control imports through license fees. In doing so, however, the Court warned that there are limits to that authority and that the Court would not rule that any action the President takes, no matter how remote, is authorized; the Presidential action must have a direct impact on imports.[40] This warning appears quite prophetic in light of the Federal District Court for the District of Columbia's striking down last spring of a Presidential order that import fees be passed on solely through the price of motor gasoline.[41] The court ruled that the measure was principally a conservation measure and only indirectly a restriction on imports, and thus not authorized by TEA. In light of judicial statements and rulings, courts would be likely to find invalid most attempts to control price or to allocate petroleum products refined in the United States.

Recently, Congress added another significant limitation to the President's authority under TEA. Section 402 of the Crude Oil Windfall Profit Tax Act added Section 232(e) of TEA which provides for congressional disapproval of actions taken by the President to restrict oil imports by joint resolution.[42] As a matter of fact, within months of its enactment, Congress invoked this power to reject President Carter's import fee which had already been struck down by the district court.[43] Of course, such a limitation, unlike a required Presidential finding, merely changes the ease of congressional oversight of Presidential action since Congress may always withdraw authority which it conveyed to the President in the first instance.

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[32] H. Rep. No. 1104, 96th Cong., 2d Sess. 187 (1980) reprinted in [1980] U.S. Cong. & Admin. News, 3903, 3910-3911.

[33] In Section 103 of the Energy Security Act of 1980, Congress recently amended the DPA by adding Section 105 which provides that nothing in the DPA authorizes gas rationing to end-users. See 50 U.S.C. App. 2076. This arguably could evince congressional intent that certain end-use conservation controls are appropriate under Section 101(c), but this addition may have been intended to apply to the scope of Section 101 (b) rather than Section 101(c).

[34] DOE's present Section 101(c) regulations contemplate only a "passive" program, *i.e.*, a program in which that agency responds to applications for assistance, as opposed to an "affirmative" program in which a formal allocation program is implemented. See 10 C.F.R. 216.3 (980).

[35] Proclamation 3279, 24 Fed. Reg. 1781 (March 12, 1959). This order was established pursuant to a predecessor statute.

[36] Proclamation 4210, 9 Weekly Comp. of Presid. Docs. 406 (April 18, 1973).

[37] President Carter utilized this authority to prohibit imports from Iran. Proclamation 4702, 44 Fed. Reg. 65,581 (November 14, 1979).

[38] See note 38, *supra*.

[39] See, *e.g.*, *FEA* v. *Algonquin SNG, Inc.*, 426 U.S. 548, 570-71 (1976); *Pancoastal Petroleum Ltd.* v. *Udall*, 348 F. 2d 805, 807 (D.C. Cir. 1965).

[40] *FEA* v. *Algonquin SNG, Inc.*, *supra*, 426 U.S. at 571.

[41] *Independent Gasoline Marketers Council* v. *Duncan*, 492 F. Supp. 614, 616-618 (D.D.C. 1980).

[42] Pub. L. No. 96-223, section 402 adding 19 U.S.C. 1862(e).

[43] See 126 Cong. Rec. H. 4534-35 (daily ed. June 5, 1980); *id.* at S. 6376-86 (daily ed., June 6, 1980).

Notwithstanding these limitations, it is arguably within the President's powers under TEA to create an allocation program which helps to implement the IEP by providing preferential treatment for those oil companies that allocate oil internationally to meet this country's IEP obligations. Such a program could serve a function similar to a "fair-share" program under EPCA. However, it would be limited in that it could not affect an oil company which did not rely on imports. In addition, its applicability to a more extensive program addressing regional and end-user nonuniformities in distribution is doubtful because the relationship to national security is tenuous.[44] Notably, under current executive organization, the Department of Commerce is in charge of implementing the TEA.[45]

4. International Emergency Economic Powers Act of 1977 ("IEEPA")

IEEPA provides the President, in the event of a national emergency, with plenary control over property that is subject to U.S. jurisdiction and in which any foreign country or national thereof has an "interest." [46] It specifically provides that the President may exercise his control "by means of instructions, licenses, or otherwise." Although this regulatory authority certainly seems to extend to foreign oil, it is subject to a number of significant limitations. First, it does explicitly provide for regulation, but legislative history arguably suggests that it does not authorize a domestic pricing of allocation scheme.[47] At most, therefore, the provision would seem to allow for regulation of transactions between foreign nations and nationals and persons subject to United States jurisdiction. Second, the required finding of a national emergency based on "an unusual and 'extraordinary foreign threat' to national security, foreign policy, or economy" presents a substantial limitation of the President's authority. A finding of such a threat might not be triggered by an IEP emergency or even by a severe domestic energy supply. Moreover, even if the President does make such a finding, Congress may terminate the emergency by concurrent resolution.[48] Finally, this provision may be of slight value since once a United States citizen or company purchases the property, it is arguably no longer subject to the Act's control. Whether this final limitation exists depends on whether the term "interest," as used in the statute, refers to more than legal "property interests."

5. Emergency Energy Conservation Act of 1979 (EECA)

Title II of EECA provides the President with discretion to establish energy conservation targets for any energy source on a nationwide or individual state basis which must be met in certain emergency circumstances or to meet IEP obligations. Once targets are set, states must develop "plans to provide for emergency reduction in the public and private use of each energy source for which any emergency conservation target is in effect." [49] If DOE rejects a state plan, after waiting 90 days it may substitute a federal plan. Theoretically, such a federal or state conservation plan could include an allocation program. Nevertheless, this authority is of limited use to the President, ironically because of its primary reliance on state governments. In the event of a serious supply shortage, it would take considerable time before plans were developed either by the State governments in the first instance, or if necessary, by the Federal Government. In addition, under the statutory scheme, a method for coordination of state plans, to address regional problems, would not be available.

6. Miscellaneous statutes

Finally, remaining statutory authorities provide the President with selective authority to control the allocation (not price) of oil and its products. The Export Administration Act of 1979,[50] provides the President with authority to control exports to protect the domestic economy and to use as leverage against countries aiding terrorists.[51] Under the Powerplant and Industrial Fuel Use Act, in a severe supply interruption, as defined in Section 3(8) of EPCA, 42 U.S.C. 6202(8), the

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[44] Notably, in *Algonquin*, the Supreme Court left open the question whether a fee-exempt system would be constitutional if it had non-uniform impacts on states. 426 U.S. at 650 n. 11.

[45] Reorganization Plan No. 3 of 1979, Section 5(a)(1)(B), 44 Fed. Reg. 69,274 (Dec. 3, 1979).

[46] 50 U.S.C. 1702(a)(1)(B). This provision was taken almost verbatim from Section 5(b) of the Trading With the Enemy Act of 1917, 40 Stat. 415 (1917), 50 U.S.C. App. 5. "Interest" may or may not implicate only property interests.

[47] See S. Rep. No. 466, 95th Cong., 1st Sess. 5 (1977) reprinted in [1977] U.S. Code Cong. & Admin. News 4540, 4543–4544. In contrast, cases interpreting the Trading With the Enemy Act, from which IEEPA's statutory language originated, suggest that price and allocation control are appropriate. *See United States v. Yoshida International, Inc.*, 526 F. 2d 560, 576 (Cust. and Pat. App. 1975).

[48] See 50 U.S.C. 1706(b).

[49] EECA, Pub. L. No. 96-102, § 212(b).

[50] 50 U.S.C. App. 2401 *et seq.*

[51] Section 7(d) prohibits the export of oil from the Trans-Alaska pipeline except pursuant to recent bilateral supply agreements or to any country pursuant to the IEP oil sharing plan.

President may prohibit the use of petroleum as a primary energy source in powerplants or major fuel burinng installations.[52] Pursuant to Section 36 of the Mineral Lands Leasing Act of 1920, the United States may demand that any royalty accuring to it under an oil or gas lease be paid in oil or gas.[53] Finally, under the Outer Continental Shelf Lands Act, as amended,[54] during "time of war or when the President shall so prescribe [,]" the United States has right of first refusal to purchase OSC oil at market prices.

There may also be other authorities that we have not yet explored, but the ones described in this memo, particularly EPCA and the DPA, are the principal ones.

CONCLUSIONS

1. Even after the expiration of the EPAA, the President has clear *legal* authority to meet the United States' obligations under the IEP, including authority to impose mandatory international allocation. If, however, as a practical matter, the success of the IEP program depends upon the voluntary cooperation of the major oil companies, that may be unlikely to occur in the absence of clear authority to impose a domestic "fair-sharing" allocation and pricing program that will ensure participating oil companies that they will not be penalized for their voluntarism.

2. We believe that under a variety of statutes that will remain after EPAA, the President has legal authority to impose a domestic "fairsharing" program if such a program is "necessary" to fulfill our IEP obligations, *i.e.*, necessary to make the IEP work as a practical matter. However, the President probably does *not* have adequate authority, in the absence of the EPAA, to impose the sort of broad scale domestic allocation and pricing system, of the nature allowed by the EPAA, that could respond to uneven distributional impacts among regions and end-users that might be created either by activation of the IEP allocation system or by domestic supply shortfalls.

3. If needed, we could perform further legal work on the viability of the President's legal authorities, in the absence of the EPAA, to deal with domestic supply problems. From our research to date, however, we conclude that the existing authorities other than the EPAA have such a hodgepodge of triggering mechanisms, as well as other limitations even when they are applicable, that they do not provide the equivalent of the EPAA if such an equivalent is desired.

Senator GLENN. On page 3 of your testimony, you say the administration supports IEA longer term measures, including substitution of alternate fuels for oil. Yet we have had these huge budget cuts in energy R. & D. and, as Senator Percy indicated, it could lead to cancellation of a coal gasification project in Illinois and already has been the primary factor in canceling one in Ohio.

Most notably on the international front, we have had the termination of SRC–2, the solvent refined coal project, which was going to be jointly financed by the United States, West Germany, and Japan. How does that square with your statement that we are supporting research and cooperative efforts internationally?

Mr. HORMATS. You are correct. There have been a number of projects that for various reasons, budgetary reasons or reasons of cost overrun, have been either canceled or postponed. There are still a number of projects that have been undertaken in the context of the IEA effort, joint R. & D., which are going ahead. I think you put your finger on a key problem. There have been cutbacks. But there are still a number of projects that are moving forward.

Mr. Borré can give you a more detailed explanation of that. The Department of Energy has spent a good deal of time on that.

Mr. BORRÉ. The Senators heard at some length on the budget of energy, generally, and DOE budgets in particular. I would like to note

[52] 42 U.S.C. 837(b).
[53] 30 U.S.C. 192.
[54] 43 U.S.C. 1801 *et seq.*

that on SRC–2, as the Congress has been informed, and as has been discussed, one of the basic considerations was the fact that the cost estimate was revised over a period of time and escalated dramatically. Projections of cost and capability made when 2 percent of the design had been completed just did not hold, when 5, 6, and 7 percent of the design work was being completed. This, as you probably know, was the project where the burden was being taken almost entirely by the sponsoring governments—the U.S. Government 50 percent, Germany and Japan, 25 percent each.

I would like to note, because I think it is important to you, Senator Glenn, and the emphasis you placed on energy R. & D. that during this period for DOE, and for the Government generally, there is a very severe budgetary tightness and budgetary priority. I am satisfied—Dr. Lantzke, who will have an opportunity to speak to this, is behind me—that we have maintained the framework of the essential international R. & D. cooperative projects under the aegis of the International Energy Agency. We are not the only government that has come to Paris and said that the budgetary exercise for 1982, 1983, or 1984 is much different and much tighter, but we are satisfied that international R. & D. cooperation under the IEA is alive and well even during these days.

Senator GLENN. Are we going to participate in the World Bank energy affiliate proposal? That has been called into question. I understand there is a report being prepared that will help define our position on this, but the success or failure of this energy affiliate proposal depends on whether or not the United States participates.

Mr. HORMATS. Let me try to answer that. I have spent a good deal of time going over the problem of energy development in the developing countries. In my judgment, it should be a major U.S. objective to encourage the developing countries' efforts to increase energy production, both to reduce their dependence on OPEC and their demand on overall world markets, and also to free up some resources they can use to buy our products. It helps our economy. So we have three or four major reasons for doing this. We have in our bilateral aid program, and in the World Bank, encouraged a greater degree of effort in this area, and many other countries have done likewise.

There was a proposal made last year to create an energy affiliate for a number of reasons. This was essentially an entity of the World Bank. It was hoped that we could get money from new sources that we cannot have at present in adequate amounts.

Subsequently, a lot of discussion has taken place and the basic conclusion is that in order to allow the Bank to do more to help the developing countries you don't need an energy affiliate per se. There are other ways of doing it. We now have come to the conclusion that the Bank is playing a constructive role in helping the developing countries increase production and can do even more in that area.

The primary way it can do this—and I talked to a number of Bank officials yesterday on this—is to get a higher private sector multiplier in its programs.

In other words, expand participation in energy projects in which the private sector plays the major role, do more to encourage the developing countries to improve the climate for private investment and energy exploration.

Senator GLENN. Are we going to depend on global private sector as well as domestic? Is that correct?

Mr. HORMATS. Exactly. The Bank will play a catalytic role, the Bank can lend more from its existing resources if it has good projects and can play a greater role in combining its lending with the private sector. The Bank basically, at least Bank officials, I can't speak for the Bank entirely, believe this is a constructive approach.

Senator GLENN. If we could continue briefly on U.S. support of energy R. & D. on the international scale as well as domestically, I think we are deficient in our support of both. I have recently visited laboratories where they are preparing to lay off scientists working on energy projects. I think that is tragic.

Mr. HORMATS. Let me say the Bank's main role is not so much in R. & D. as in lending for exploration and development of pipelines, dams, hydrocarbon projects, things of that nature. The R. & D. is done normally by private entities.

Senator PERCY. Thank you very much. Senator Cohen?

Senator COHEN. Just a couple of quick questions.

The thing that is disturbing to me is the lack of reality as we approach this subject of sharing oil supplies in the time of crisis. You have indicated that Senator Bradley has focused, perhaps unduly, upon a technical, complex area of the law. If we can't focus upon it in a time of temporary oil surplus, I suggest to you it is going to be very difficult to focus upon it in a time of crisis. I also recall the domestic political reaction when it was proposed that we sell or transfer Alaskan oil to Japan.

Congress immediately reacted and prevented it, even though it was probably in our economic interest to do so. Nonetheless, Congress took action to prevent that from occurring.

So I find it somewhat difficult to understand why we aren't coming to grips with these problems. You are suggesting that we can have an allocation system on an international level at a time of emergency, which you are unwilling to have in the United States given our past experience with oil allocation.

We found it didn't work very well. Let me tell you that I don't think the free market system is going to work very well in the time of dramatic shortage for the State of Maine, which may find itself at the end of a supply route and with an economy that doesn't have very much money to purchase those higher priced supplies of oil. I can tell you what the domestic reaction is going to be at that time in terms of the United States transferring oil to these various countries.

You indicated, Mr. Hormats, that the United States may be a giver or a receiver of international oil supplies. Do you think Japan is going to supply the United States with oil. I doubt it. Would Germany? I doubt it. We have a commitment, over and above our IEA obligations, to supply Israel with oil in the event that they run short during a supply disruption.

So I don't see oil sharing occurring on a bilateral basis. I would like to know what evidence we have that our allies, members of the IEA, would be any more responsible than they have been to date as far as burden-sharing on our defense commitments? We have seen a retrenchment by Germany. We have seen cutbacks proposed in Great Britain as far as their naval forces are concerned. There is tremendous doubt as to whether the other allies are going to meet their 3-percent commitment.

So what evidence is there that our allies, in a time of crisis, are going to measure up?

Mr. HORMATS. It is a fundamental point in this overall exercise.

Senator COHEN. I have taken my time.

Mr. HORMATS. Let me say the administration has not decided one way or another on the question of domestic allocation. I was really trying to confine my remarks to a more limited piece of the pie. So I don't want to mislead you on that since it is not my decision to make, and it primarily depends on domestic considerations.

Second, the likelihood is that even under the IEA situation where the trigger was reached, we wouldn't be selling U.S. oil. It would normally be a ship that might have otherwise come to the United States that would go to, say, Holland.

On the broader point about the sharing of oil, would our allies do it for us in the event of emergency? That is what the IEA and the IEP, the international energy plan, are all about.

The problem here is that I think many of us, and maybe Europe as well, perhaps have forgotten the urgency of the situation we all faced after 1973-74, when there was a very real danger that a scramble for oil would pull apart the alliance. That was a major danger. That is why Secretary Kissinger, Secretary of State at that time, placed urgency on this type of arrangement.

It strikes me that, if this International Energy Agency sharing arrangement is not credible, that a very major portion of our alliance is not credible because there is always a possibility that we could be subject to the threat of oil blackmail; our allies face the same problem. Therefore we have made a major effort. That is why we have put such stress on living up to our part of the commitment: to insure that our IEA partners regard our commitment as credible. By the same token, in all of the discussions we have had in the context of the IEA, we have made similar assumptions about the Europeans.

From all we have heard from the Europeans, their commitment to this is credible as well. We have no doubt about that.

Senator COHEN. Is any other European country reduced in proportion to their imports? For example, we have cut back 8.9 million barrels a day to 5 million barrels a day since January 1979.

Have the other European nations done that?

Mr. HORMATS. Other European nations have made cuts. I can send you the numbers. Virtually every country I am aware of has also reduced its oil consumption. We were a little bit faster at the beginning. We had a lot more, some excess utilization, shall we say, due to the fact that we were artificially suppressing prices through oil price controls.

So we had a little lead but we also had further to go. But the Europeans, and the Japanese have also made impressive strides. In fact it is quite dramatic that a country such as Japan, which was living rather efficiently even before the embargo, has actually cut back, the Western Europeans have as well. It has been quite dramatic.

Our hope is that it will continue. In part, it is structural. In part, it is slower growth. The cutback is there and it is a genuine one.

Senator PERCY. Thank you very much, indeed.

Mr. Borré, the Department of Energy's Office of International Affairs has had a significant cutback in personnel. Will any part of the responsibility for the issues that you have been dealing with be shifted to the State Department?

Mr. BORRÉ. Mr. Chairman, that is a budgetary question that I don't think I can respond to definitively. We operated from a peak authorization in fiscal year 1981 of 159 full-time permanent positions and having marked—I will be brief— from a peak of 159 to an opening of next fiscal year of 123. We are trying to reach that lower number through attrition. I have to comment quite candidly that there is a loss of talent, but there is attrition under way.

Like many other parts of the Government, many other parts of the Department of Energy, we simply have to do more with less.

This lesser manpower doesn't quite give us the latitude that one would have had with positions of 159, 150, or 140 of meeting the essential requirements, Mr. Chairman, but we are pushing the program officers' activities that were previously undertaken in the Office of International Affairs, to the Office of Management Administration program support activities. It is a tight squeeze but it is manageable. I think if the final decisions are properly taken by the permanent Assistant Secretary and somebody designated, in my judgment—and I have discussed this with the Secretary and Management—that the essential functions can be preserved. I think it is no accident in the reorganization of DOE that took place after January 20 that the international function was retained as an Assistant Secretaryship.

I am confident that the Secretary and other senior management officials in DOE have every intention of playing a stronger international role.

Senator PERCY. Secretary Hormats, can you tell us whether State is picking up any DOE responsibility and lost talent staff?

Mr. HORMATS. So far we don't have any plans for taking over the role of DOE in the international area. Cooperation between State and DOE has been excellent. We have worked together, Mr. Borré and I, on any number of things: Representing the United States in the International Energy Agency; preparing for the summit, where we cochaired the U.S. delegation to the High-Level Monitoring Group which followed up the last summit and prepared for this one. It is my judgment that the Department of Energy's international function is important to the interests of the State Department and the country because the Department of Energy deals with a host of complicated domestic problems which have a major impact on our ability to fulfill our IEA and other international obligations.

It is important that there be in-house at DOE a strong international capability. Not only would we not want to take these responsibilities, but we would not regard it in the national interest that there be a shift from DOE to State. We think the balance now is good and appropriate and we hope it will continue more or less as it is.

Senator PERCY. Because of the President's unexpected visit to the Hill within the hour, Senator Baker has called a meeting at 11:15, I will put one more question to you, Secretary Hormats.

I agree with you that the IEA should focus more on management issues, stocks are expensive and many IEA countries have trouble affording the currently mandated level of stocks. They find it difficult to move away from the sharing system to a stock-oriented energy security strategy. In addition, many of the countries outside the IEA, particularly in the developing world, would be particularly hard hit by disruptions as we well know.

In the past, the United States has attempted to give informal help to these nations during disruptions, yet that system leads to a

particularly heavy burden falling on some IEA countries and not on others.

Should we encourage the IEA to move toward a more formal mechanism to deal with the energy needs of the developing world?

Mr. HORMATS. That may be somewhat further down the road. I don't know that we have ever really envisaged doing this to a great degree in the context of the IEA. There has been some discussion of this in the OECD, particularly in the development assistance committee.

But by and large, the problem of the developing countries is that they don't have adequate energy stockpiling capabilities because of the expense of building stocks relative to their other capital requirements. What we are really trying to do with the developing countries is help them develop additional domestic production capability. That is their crying need at the moment. We have not really placed too much emphasis on stockpile capability in these countries because of the cost and because it competes with other more urgent capital needs in many of these countries.

But in the overall picture of energy development, this is important. It is important to the bilateral and multilateral point of view. Many developing countries have suffered worse than the industrialized countries for the reasons that you mentioned. Our hope is that through our assistance and more importantly through their own efforts to deal with their domestic problems, they will begin to ease themselves out of this difficulty.

Senator PERCY. We thank you very much indeed. Senator Bradley?

Senator BRADLEY. Mr. Chairman, I have no more questions other than to say that I think the burden of proof continues to rest on the administration for coming forward with an international energy energy policy which I don't think we have heard today. I know of your interest in it. At least we will continue to remind people in the administration when that is not forthcoming that we are not satisfied.

Senator PERCY. Thank you very much. I think for the forum in Ottawa—we have got a few days left—your discussion is helpful. Thank you, gentlemen, very much indeed.

[The prepared statement of Mr. Hormats follows:]

PREPARED STATEMENT OF ROBERT D. HORMATS, ASSISTANT SECRETARY OF STATE FOR ECONOMIC AND BUSINESS AFFAIRS

Mr. Chairman, I would like to thank you and the other members of this Committee for the opportunity to discuss the U.S. approach to international cooperation on energy security.

Enhancement of energy security—access to and use of energy from dependable sources—is a major objective of this Administration. It is one that we share with every other government in the world.

INTERNATIONAL ENERGY SECURITY

For ourselves and many others, particularly the other Western industrial countries, pursuit of energy security has meant first of all reducing our vulnerability to interruptions in the flow of imported oil. Imported oil has in the past decade proven to be the most unreliable of energy supplies. Repeated interruptions and supply uncertainties have levied a heavy toll on all of us. Employment has been reduced. Oil price increases generated by the interruptions have exacerbated inflation throughout the industrialized economies while at the same time causing enormous transfers of financial assets from consuming to producing countries.

Finally, and potentially most serious of all, oil interruptions have political effects. Governments scrambling for oil to keep their economies running have

found themselves under pressure to sacrifice other policy interests, including national and international security ones, to this end. U.S. national security is directly threatened if our friends and allies find themselves driven to hedge alliance interests in an attempt to maintain their access to oil. It is unfortunately the case that some of our most strategically important alliance partners are also most dependent on oil imports and hence most susceptible to the economic and political pressures of an oil supply disruption. We have been able to avoid such pressures to date, but the potential for such divisive pressures will remain until the industrialized democracies reduce substantially their overall vulnerability.

Adequate emergency preparedness is essential to limit the political and economic harm of oil supply interruptions on the United States and its allies. To be effective, such contingency planning must be coordinated internationally. We must stand with our allies and friends in oil crises, not against them. And, in turn, we expect them to stand with us. Sacrifice of security and political interests in order to curry favor with oil suppliers, and panicked bidding up of oil prices, ultimately harms all of us; we must be prepared to provide each other the support necessary to prevent such reactions.

THE INTERNATIONAL ENERGY AGENCY

This Administration is therefore strongly committed to participation in the International Energy Agency. The IEA was founded in 1974 precisely for the purpose of coordinating efforts to reduce vulnerability to oil supply interruptions. Its membership includes all of the major Western industrial countries in Europe, North America, and East Asia except France. As Deputy Secretary of State William Clark stated at the IEA Ministerial meeting last month, "the United States has always been a good partner in a crisis," and our friends in the IEA "can count on American commitments to this organization and to its individual members."

In coordinating efforts to reduce member vulnerability to oil supply disruptions, the IEA is focussing on both long and short term measures. In the longer term, structural adjustment, conservation, improvements in fuel efficiency, and substitution of alternative fuels for oil will reduce substantially the potential impact of oil supply crises on member countries, and reduce the need for crisis management. In this area, the IEA plays the essential role of providing a forum for discussion of, and collaboration and mutual support on, these efforts. The Administration supports these activities and will continue to participate fully in them.

Of equal importance, and central to our discussion here today, is the IEA's crisis management function. The Administration supports this program, and will participate fully if the IEA emergency system is activated. Let me elaborate.

PRINCIPLES OF U.S. OIL SUPPLY EMERGENCY POLICY

First of all, there are several principles which this Administration considers basic to its domestic oil crisis response strategy, and which will therefore serve as the foundation as well for our approach to the IEA emergency system. Stated most broadly of course, our primary aim must be to minimize the extent to which a temporary reduction in oil supplies disrupts our economy or harms our national interest or security. In other words, we would seek restoration of equilibrium between oil supply and demand as smoothly and quickly as possible. Demand must decline or supply must rise back up.

In general, this Administration will rely to the maximum extent feasible on normal market forces to restore equilibrium between demand and supply of oil. In our view, price is the most efficient allocator of scarce supplies among potential consumers. It should therefore be the primary instrument of equilibration, particularly where it is reduction in demand which is required.

At the same time, It is appropriate and essential that the Federal government be prepared to take steps on the supply side. Here I refer in particular to the Strategic Petroleum Reserve. In our view, drawdown of stock is the most effective measure available to the Federal government for forestalling a wrenching process of adjustment by the U.S. economy to a major but temporary reduction in oil supplies. Release of SPR stocks onto the market could obviate the need for any reduction in demand for oil. At a minimum, it would extend and thereby ease the period of adjustment to reduced oil supplies and higher prices. The administration is therefore committed to a rapid fill of the SPR to a level of 750 million barrels.

These principles of domestic oil crisis management strategy must also be the cornerstone of our international strategy. At the same time, our international

strategy must take into account the requirements of national security. As I explained earlier, this fundamentally means that we must be prepared to work with the other industrial democracies in responding to oil crises. A coordinated response will enhance the security of each of us individually and thereby the security of all of us as a group.

THE IEA EMERGENCY SYSTEM

The formal IEA emergency system is designed to deal with oil supply reductions of seven percent or more of consumption of IEA members as a group or of any one country individually. This system contains both domestic and international elements. The elements which come into play first are the domestic ones. In a crisis, each member is committed to rapid implementation of a program aimed at restoring equilibrium to its domestic oil market. In general, these national programs are required to include both demand restraint measures and drawdown of reserve oil stocks (although countries with very high stocks or surge production capacity are permitted to substitute use of these for demand restraint). In support of these programs, member countries have committed themselves to maintain on a contingency basis reserve oil stocks (private and/or government-owned) equivalent to at least 90 days of imports, and in addition to have in place a strategy for achieving emergency demand restrant up to a level of ten percent of consumption.

On top of these measures is the international element of the IEA emergency system. This is the IEA oil sharing system. Its purpose is to assure that no member country is subjected to overwhelming hardship by an oil crisis, because such hardship would undermine national and international security and stimulate panic in the oil market. This objective is accomplished by assuring that international oil supplies available during the crisis are shared equitably, and thus that the burden of domestic adjustment to the reduced level of oil supply is roughly equal among member countries.

FULFILLMENT OF IEA OBLIGATIONS UNDER THE IEA SYSTEM

As I stated, the U.S. Government strongly supports the entire IEA emergency system, and stands ready to participate fully in it. To this end, the administration has conducted a review of its ability to fulfill its obligations under the IEA system.

We stand well-prepared to comply with the domestic elements of the IEA system; however, the methods which we plan to use for this purpose differ from those espoused by previous administrations. First of all, we have no intention of ever again imposing a comprehensive system of domestic oil allocation and price controls. Our disastrous experience with such controls during the last decade leaves no doubt on this point. This administration will rely primarily on the price mechanism to effect necessary demand restraint, and is confident that it will succeed.

Second, we will place much greater emphasis on accumulation of reserve stocks not only to fulfill, but to surpass substantially our IEA stock commitment, so as to minimize the need for demand restraint in the American economy where the reduction in oil supplies is clearly temporary. The amount of oil in the SPR today—over 160 million barrels, the equivalent of over 30 days of imports—is almost double what it was a year ago, and we are continuing to fill it at a rapid rate. This supplements current private oil stocks of 1.3 billion barrels. Clearly we are already in an excellent position in this area, and will continue to improve it.

We are also working to assure our ability to participate fully in the international element of the IEA emergency program, the oil sharing system. The imminent expiration of the Emergency Petroleum Allocation Act, which provided part of the statutory authority for past planned participation in the IEA system, has necessitated some rethinking of our strategy in this regard.

The IEA emergency sharing system calls for participation by member governments and their oil companies in international allocation of oil as necessary to provide each IEA member country an equitable share of available international oil flows. In any given crisis, the United States might be a giver (allocation obligation) or a receiver (allocation right) of IEA-shared oil.

IEA member countries have decided to fulfill this obligation primarily through a system of voluntary offers by oil companies to supply and receive oil, concluding that this is preferable to the alternative of relying on government-mandated oil movements (although authority for mandatory international allocation is required to back up the voluntary offer system). Voluntary movements are less intrusive, maximize reliance on the market, and avoid having the government direct the movement of possibly substantial cargo volumes. They also take advantage of

the oil industry's expertise, and its ability to shuffle oil shipments smoothly among destinations.

U.S. firms receive an antitrust defense for participation in the IEA sharing system under Section 252 of the Energy Policy and Conservation Act (EPCA). The possibility of mandatory government intervention offers them a strong incentive to participate in the IEA system and particularly to offer oil for IEA sharing on a voluntary basis.

In addition, we have under consideration development of a contingency plan for a limited crude oil "fair-sharing" system to backstop such voluntary offers for activation should the President deem it necessary to meet our IEP obligations. The aim of this system will be to assure U.S. oil companies that the burden of supplying oil to the IEA sharing system will be shared equitably. It is the opinion of the Department of Justice that the President has authority to implement such a fair-sharing system under EPCA Section 251. In our planning for a fair-sharing system, we will be focusing on a very narrow system which will not adversely affect decision-making and efficiency in the market.

Of course, we might also make some use of oil from the SPR to compensate domestic oil companies for oil offered under the IEA system. However, we do not believe it would be wise to bind the United States to this approach beforehand.

EVOLUTION OF THE IEA SYSTEM

In sum, the United States is itself fully prepared to fulfill its obligations under the IEA emergency system. At the same time, we see scope for improvement in that program. Energy crisis planning is a dynamic process, and the IEA emergency response strategy is an evolutionary one. First, new operational issues arise continuously and must be resolved. Many of these are technical, but some raise significant policy issues. For example, over the years, it has become increasingly apparent that the formal IEA emergency sharing system is too cumbersome to be activated except in very serious market disruptions. This means that some informal action may be preferable to activation of the formal system in many cases where only one or a few countries have sustained a loss of oil supplies of more than seven percent of normal consumption. The IEA is currently reviewing means for conducting such informal measures.

In addition, with the world oil market also evolving, it has proven necessary to revise assessments of the likely character of future disruptions and to adapt the IEA response strategy accordingly. The 1978–79 Iranian revolution taught us two things. First, we learned the danger of entering even a small oil supply disruption with low levels of reserve oil stocks. Countries and companies with low stocks during a disruption of uncertain duration are prone to seek to build them up, thereby exacerbating demand-supply imbalances and aggravating price pressures. For this reason, the Administration plans to focus heavily on oil stock questions in the IEA and to encourage our IEA partners generally to join us in increasing their stocks.

SMALL OIL SUPPLY INTERRUPTIONS

A second lesson of the Iranian revolution was that relatively small disruptions which do not justify triggering of the formal sharing system can under certain circumstances have serious political and economic effects on consuming countries.

IEA countries responded to the outbreak of the Iran-Iraq war last year with a number of measures. On October 1, they issued a statement encouraging avoidance of high-priced spot market purchases and drawing down of stocks as needed Then, on December 9, IEA ministers expanded this program to include consultations with companies on assisting countries hard-hit by the supply disruption, and a joint commitment to a reduced level of oil imports in the first quarter of 1981. As it turned out, partial resumption of Iraq's oil exports in January coupled with declining demand substantially eliminated the shortfall in oil supplies, rendering continuation of the October-December measures beyond the first quarter of 1981 unnecessary.

Some IEA members have expressed concern about the ad hoc nature of the October-December measures, and the implications to be drawn regarding preparation for future, longer-lived supply disruptions of this kind. The IEA has formed a high-level group to study this issue. While there is broad recognition that intervention in international oil trade of the kind contemplated in the formal IEA sharing system is not appropriate in such circumstances, many IEA members do support a strategy of consultations with and solicitation of cooperation from private oil companies.

In IEA deliberations on this subject, the United States has strongly emphasized the Administration's belief that high levels of oil reserve stocks and reliance on market forces provide the most effective protection against smaller as well as larger IEA disruptions. We are exploring with other countries what levels of oil stocks are desirable. At the same time, we have stated our view that it is not appropriate to develop a formal system that would commit the United States in advance to a specific course of action in responding to small oil supply interruptions. Rather, should a need arise for cooperative action by IEA nations, measures can be formulated at that time to meet specific needs.

On June 15, 1981, IEA Ministers joined together in issuing a statement that "the IEA and its member countries should be prepared to prevent a disruption in oil supply from again resulting in sharply higher prices and severe economic damage. The full implementation and strengthening of market forces in consuming countries will contribute heavily to this objective. Supplementary action by governments may be necessary in those areas where market forces do not sufficiently counteract the adverse impact of supply disruptions, particularly in international markets. When such action is necessary, it will have to be flexible in responding to the specific situation at hand and at the same time be taken promptly and effectively."

IEA ministers noted that ongoing work on possible sub-trigger measures was underway and asked that this work continue, beginning with consultations with oil companies. The measures under consideration include: data systems to permit continuous monitoring of the oil market; encouragement of national measures to promote demand restraint, high indigenous energy production and fuel switching; hortatory discouragement of resort to the spot market; stock policy guidance; measures to deal with country supply imbalances; increased emergency oil stock requirements; and improved government-industry relations. An initial meeting to elicit company views was held last week, with a follow-up meeting tentatively planned for October 7. We are looking toward possible decisions by the IEA Governing Board in the fall.

Thus, in maintaining the commitment of the U.S. Government to the basic elements of the IEA emergency program, we will also be working with our fellow IEA members to refine them and to adapt them to the changing world oil market. We do not yet know precisely where these efforts will lead us because the outcome will depend on the policies adopted by other governments as well as by ourselves, and because we have not yet fully completed our own policy review. However, there should be no question about the commitment of this Administration to act where necessary to protect American national interests in an oil crisis.

Thank you.

Senator PERCY. We will ask our final witnesses to constitute a panel. If Mr. Ulf Lantzke could be joined by David Deese and by Dr. Charles Ebinger, who will be accompanied by Mr. Richard Kessler, we would appreciate that.

Mr. Lantzke, we welcome you and we appreciate so much your coming from Paris to be with us today. In any consideration of international energy security issues the International Energy Agency is the focal point of discussion. In addition to preparing and potentially administering the international oil-sharing scheme, the IEA also serves as a forum for international consultation and cooperation on a variety of international energy issues. One particularly important activity at the IEA is its role in promoting the use of coal world wide.

I want to thank you again for appearing at the subcommittee's hearings in Carbondale, Ill. last month. Your testimony contributed to a very successful hearing. In fact, I was able to announce the first-ever sale of Illinois coal to Spain.

We very much appreciate your personal intervention which helped insure the success of that conference. It is good to see you again. We look forward to your testimony.

TESTIMONY OF ULF LANTZKE, EXECUTIVE DIRECTOR, INTERNATIONAL ENERGY AGENCY, PARIS, FRANCE; DAVID A. DEESE, ASSISTANT TO THE DIRECTOR, CENTER FOR SCIENCE AND INTERNATIONAL AFFAIRS, JFK SCHOOL OF GOVERNMENT, HARVARD UNIVERSITY, CAMBRIDGE, MASS.; CHARLES K. EBINGER, DIRECTOR, PROJECT ON ENERGY AND NATIONAL SECURITY, GEORGETOWN UNIVERSITY, WASHINGTON, D.C.; ACCOMPANIED BY RICHARD J. KESSLER, DEPUTY DIRECTOR, PROJECT ON ENERGY AND NATIONAL SECURITY, GEORGETOWN UNIVERSITY

Mr. LANTZKE. Thank you, Mr. Chairman. I have a prepared statement which I, with your permission, will submit for the record.

Senator PERCY. We will incorporate the full statement in the record. Your summary will be appreciated.

Mr. LANTZKE. I would like to concentrate on three points which are related to the subject of this hearing. We ought not to regard energy as an issue in itself, but rather in the context of economic, of social and overall political stability and security. We have found that the very one-sided reliance on one primary energy source in the world is a potential danger to those areas and therefore IEA was founded.

With the issue of energy security and stability three major activities of the agency are connected. One should in particular not only assess the short-term situation. We are convinced that the industrialized world will only move out of the rather delicate balance on energy if we are successful to basically change the structure of our energy economics.

We have agreed in 1977 on a long-term energy policy concept which contained pricing at world market levels, which contained the restriction of oil use in electricity generating, which contained intensified use of coal, of natural gas, and of nuclear energy. All of our member countries are committed to implement all of these principles in their individual energy policies.

I would like to state that we have made considerable progress, progress which can't be seen in all cases and statistics yet, but which certainly is already visible in a highly increased activity in those fields.

Thus, with consequent implementation of policies adjusting of long-term change, we probably will finally change the energy vulnerability which we all feel so strongly these days.

In the short-term, there are two basically different cases: One being the real serious crisis of a shortfall being greater than 7 percent. Here the emergency system as defined in the IEP would be triggered. There are several components tojthis system. There is the commitment to the 90-day stock level which all countries are committed to hold as emergency reserve. There is also a commitment to artifically reduce demand on a short-term basis by 7 or 10 percent depending on the gravity of the crisis. There is an allocation system that we have already been hearing about and there is a rather unique data system which enables us to give member countries an overview of all oil flows in the world market.

We have had three tests of the system and there is agreement that the system should be further tested about every 2 years because people change, systems are getting more refined, major components are updated. Our experience from the last test held in October-November, which included the oil industry in a very broad way, and also included for the first time the national sharing organizations.

We concluded that even if there were some shortcomings under the psychological conditions of such a crisis on the whole the system would work. I think I could go into detail if there are questions on that later.

The second area which isn't atjpresent covered by the IEP, by the international energy program, are crises where the shortfall is lower than 7 percent. We have just gone through two shortfalls of that type. I don't need to repeat their details. The price increase of about 160 percent over 1½ years, a result of the shortfall following the Iranian Revolution has made governments concerned about an area where originally when the IEP was drafted, everybody had hoped that the flexibility of the market would take care of those situations. Governments are concerned, but at the same time nobody would intend to implement a very rigid system. However, we probably need better planning and better analysis should such situations arise again.

There is also continued general agreement that market forces should be allowed to play their role. However, in some cases it is felt that certain market forces alone could result in rather steep price increases which could be eased by specific government action, not replanning the market by an administrative system, but by establishing better information systems and a system of improved consultations between governments and industry in such particular situations.

We were not in a very well-prepared position in 1979 when the Iran crisis broke. We were not able to establish fast assessment of the situation because we didn't have the necessary data available.

It took about 2 months to bring the data in place. Second, and consequently, the climate of uncertainty contributed to stockpiling activities which at the time were not necessary to the extent developed. In September 1980, we did have the information system in place and we were in the position to very quickly analyze the situation and come up with advice.

In order to be better prepared for possible repeats of situations of this type discussion are under way in the agency. Up until now, no decisions have been taken. An ad hoc group has been created and first consultations have taken place with industry. Ministers had a broad discussion in their June meeting on all of these questions and elements of these discussions were the need for an ongoing monitoring analysis of the current market, to have an up-to-date picture should such an event occur again; second, the use of stocks with the aim for bringing about more flexibility for the use of stocks in situations of that type, the potential for increased indigenous production and the discouragement of undesirable purchases.

We have seen that some purchases in the course of 1979 and the first part of 1980 certainly could be labled as being undesirable and would have better not been made. Finally the question will be addressed how to deal with supply imbalances among IEA members, which could arise due to the fact that not all countries must be equally hit by a particular shortfall.

We had in 1973 a relatively even distribution of the burden to oil companies. We had in the case of the Iranian revolution a different situation. One company in particular was particularly hard hit whereas the supply position of the other companies remained more or less as it had been before and the same can occur with individual countries.

We would hope that as a result we may come up with proposals for sclutions which are practical and balanced.

We are confident that we will come to final proposals toward the end of the year and we hope we will then see decisions by our governments, how further to prepare for such situations.

Thank you very much, Mr. Chairman.

Senator PERCY. Thank you very, very much indeed. Because I have to leave, Senator Bradley has very thoughtfully offered to stay on for a short period until he must leave as well. I would like to ask just a couple of questions of you, and I would like very much to hear Dr. Deese and Dr. Ebinger summarize their statements for a few minutes.

When I have to leave, Senator Bradley, you can put any questions to the panel that you have in mind.

About 1 year ago there was some question about whether the IEA would have adequate means to cope with a sudden shortage when oil company reporting was limited by U.S. failure to issue an antitrust clearance.

Is the current antitrust protection provided to the oil companies sufficient to allow full cooperation with the IEA?

Mr. LANTZKE. It appears that under conditions of a crisis they are. Because then we get very detailed questionnaires. Information from the companies and the questionnaire B submitted by governments summarize the information. We are in the course of developing a more simplified system for normal times because these systems, these questionnaires are more tailored to conditions of a real crisis and give detail which we don't need for the current market assessment.

We have some doubts that with the information available without these questionnaires we would produce effective analysis in case a shortfall would occur suddenly. That is the reason for which we have prepared an additional but, more simplified system which would replace questionnaires A and B in normal times. This is one of the elements that certainly will have to be further looked at and is part of the present discussions.

Senator PERCY. The IEA's membership is composed exclusively of members of the Organization for Economic Cooperation, OECD, which is an organization by and large reserved for the world's richer nations. The energy crisis, as we well know, is far more devastating, far more severe than the gas lines, inconvenience, and prices that we have experienced in the United States.

The combination of traditional and conventional fuel shortages could roll back a generation of development in the Third World. Furthermore, such developing countries as Brazil and South Korea import a lot of oil, placing significant demand on the market during a disruption and potentially undercutting IEA's efforts to urge restraint on its members.

I went to Korea; I tried to sell coal there, We are working rapidly with them now to see that they can carry out the objectives that you have so well enunciated.

What is the IEA doing about the energy situation in the developing world and its potential impact on the IEA's programs?

Mr. LANTZKE. In a crisis we have a paragraph in the energy program where members of the IEA clearly state that in a crisis they wouldn't take more than their normal share. In other words, they would not compete for the share of those countries. This will be taken serious in implementing the chapters 3 and 4 of the agreement.

In terms of practical cooperation we have the opportunity to establish relations even if those countries can't become members and we have thrown our R. & D. projects open to participation by nonmembers.

So we are trying to establish better contacts and better relations, trying also to give advice. It is frequent that we have contacts with the governments of developing countries and we answer their queries.

Senator PERCY. We have dramatically brought down our oil imports. I don't know whether the world is fully aware of that. We still do have a long way to go There aren't many countries that have the flexibility we have because of our enormous waste, because of our controlled prices, and our inability to really perceive that energy shortages could occur and prices would be exorbitant. We are trying to work in the right direction.

Hubert Humphrey and I founded the Alliance to Save Energy. Senator Bradley has worked intimately with us as a private sector group designed for the purpose of improving energy efficiency. Certainly energy conservation is not only in our economic self-interest, but also in the interest of making international energy policy more effective.

It is difficult for a nation that is an energy waster to urge economy on its friends. We have had to clean up our own house here. What is the perception of our allies of the efficiency of energy usage in the United States?

Could you comment also on what IEA is doing to encourage energy conservation among its members?

Mr. LANTZKE. First, what are we doing? We have quite an active change of information about the measures that have been taken. We have scrutinized reviews country by country every year; we look at the results, the results of the individual countries of what they have achieved and we have pointed out in those reviews the areas where we see deficiencies.

Up until now, our member countries could be criticized and be seen publicly criticized in quite a positive way. It was not taken as an undue criticism, but rather as a helpful criticism in implementing energy policies which may have been unpopular.

I would think that it is naturally recognized in other countries that the starting point for the United States was different. The progress made over the last 2, 3 years certainly is recognized positively.

On the other hand, it is not our understanding that U.S. performance over this period is not matched by other countries. In Germany, for instance, oil consumption has gone back in 1980, compared to 1979, by 11 percent, whereas the U.S. reduction was a bit lower.

Mr. Hormats has already pointed out the progress Japan has made even if they already hold a very energy efficient energy economy as a starting point. So I don't think it is really helpful to compare performance and look at it in a competitive way.

Our assessment is quality oriented, realizing that not everything is possible under given political circumstances, and that there may be very forceful conflicting policy issues which might force a government to postpone action on energy for a certain time.

There are conflicts about nuclear energy. Austria, for example, had a referendum, a negative referendum on nuclear energy and nobody can really criticize Austria under those circumstances that they can't take into operation a nuclear plant. I can come up with other examples. So what I think is really relevant is that a country is seen to undertake every reasonable effort in the right direction in order to improve its situation taking into account the particular economic and political circumstances.

Senator PERCY. Is there anything you can expand on with respect to what the IEA is doing to encourage the use of coal by its members?

Mr. LANTZKE. We have agreed on a program of action on coal. It is a political commitment that all countries will follow active policies for coal development. We have agreed that electricity generation from oil should be gradually reduced and basically be replaced by coal and nuclear, that there should be encouragement for coal use in industry and we are seeing quite a lot of the industries in Europe and Japan doing this; and that there would be some kind of national treatment for long-term contracts and coal moved in connection with direct investment.

In addition, we have created a coal industry advisory board which is composed of members from around the world, personalities active in business life, I think seven coming from the United States. The group also covers the potential coal consumers, potential coal producers, coal infrastructure and equipment manufacturing industries.

We are hoping that this group will in its reports give active advice to governments where bottlenecks exist and how private investment or where necessary government action, can overcome those problems.

Senator PERCY. Thank you.

The President's luncheon will, I am sure, adjourn at 1:45. I would love to just sit down with you then in the Capitol, if you have time, and listen to some of your problems to see what we can do to be of assistance. Bill Strauss, our chief of staff, will make arrangements then to see that you can meet with me over there. We are very appreciative of your being here.

Now, Dr. Deese, if you could proceed, the full comments will be incorporated in the record. We appreciate your being here.

Mr. DEESE. I am pleased to participate in this important hearing, Mr. Chairman. I will submit my testimony and a short article for the record.

I strongly support the efforts of yourself and Senator Bradley, on energy security policy, as well as the objectives of the prior statements by the new administration. But I frankly fear that our Government as a whole remains unprepared, unable to meet a serious threat to our national security.

It is my personal judgment that the United States may actually be more vulnerable to energy shocks and possible wars than our allies

who are clearly even more dependent than we are on imported oil supplies. I define energy dependence as the simple quantity of energy supplies that a country imports, whereas energy vulnerability is a country's actual liability to damage from the supply disruptions after considering broader economic, political, and military factors such as the effectiveness of emergency preparedness programs.

Here I clearly disagree strongly with the prior statements of Mr. Rashish and Mr. Hormats. Your Energy Preparedness Act of 1981 is clearly the best single proposal for the U.S. domestic energy security policy that I have seen, although there is still room for improvements.

I agree strongly with the earlier statements about the dangerous mentality of glut which we now seem to find ourselves in. Nothing could be potentially more wrong or destructive, especially as Senator Bradley has pointed out, since the administration's strategy is to forgo preparations until after the next emergency strikes.

If emergency measures are not in place before such a crisis strikes, we lose precious time and risk taking counterproductive actions. Many measures are only effective if they are taken before or at the start of a crisis.

I highly encourage the United States to lead our allies in trying to formulate an action list of preparation for the so-called subtrigger shortfalls. I agree strongly with your statements, those of Senator Bradley, and the new administration that the key defense of the United States is in fact our domestic energy security policies. The IEA emergency response system can only work if members have strong domestic preparedness programs. The United States also faces a severe problem of coordination between domestic and foreign policies, and among the several domestic components of domestic energy and security policies. From the position of an outside academic, I am still quite concerned by the lack of definition of DOE responsibilities and the coordination of authority and responsibilities of the DOE, the Department of State, the National Security Council and the Department of Defense in national security policy. I see no dramatic, or even significant improvement in that area to date, although it certainly is still relatively early in the administration.

I agree strongly with the apparent objectives of the new administration toward the IEA, but I disagree with the statement of Mr. Rashish about the similiarity between the way we should treat the domestic, as opposed to international oil markets and energy and security policies.

I think, specifically, that neither the return to complete U.S. dominance of world markets of the 1950's, nor complete reliance on so-called free market is possible in the international sphere. Although private sector actions may be the best general baseline for action during emergencies, there is no central authority at the international level to settle disputes, countries and companies struggle to survive under even relatively small disruptions, and some OPEC nations have taken intentionally hostile actions not only during embargoes but also in chaotic unintentional disruptions such as during the Iran-Iraq war of 1980–81. Even the largest oil companies may not be able to work around the increasingly tight set of economic restrictions on destinations of oil, transport modes, and refineries. Finally, international coordination efforts face a very wide variance in the types of domestic oil markets even in the major oil

consuming nations, including factors such as the degree of government intervention in pricing, the presence of the international companies and the availability of indigenous oil supplies. For these reasons and others, I think it is unwise and dangerous to try to project our fundamental baseline of a free market approach in the domestic economy into world oil markets environment.

I then list in my testimony a set of strengths and weaknesses that I see in the IEA system. Each weakness that I list includes several proposals for strengthening the IEA system.

I end on a number of broader notes, including energy problems in less-developed countries (LDC). I think we must strongly support a reviewed and revised proposal for an energy affiliate to the World Bank to help with LDC energy development. In support of my comment about relying on free market forces, it is impossible to rely exclusively on the multinational oil companies to develop oil supplies in LDC's completely on their own, because there are too many disincentives under the current international system.

Thank you.

Senator PERCY. I want to thank you very much and congratulate you on what you coedited, "Energy and Security." It received wide recognition. It is a well-deserved tribute to you.

Dr. Ebinger, you have a forthcoming book, "The Critical Link: Energy and International Security in the 1980's." We are delighted to have you here.

Mr. EBINGER. Thank you very much, Mr. Chairman. I would like to make some brief opening remarks and have the testimony of my colleague, Mr. Kessler, and my testimony entered into the record.

Today I would like to assess the current state of global energy security and suggest some specific areas where international energy policy could be improved. I believe that the United States needs to formulate a new strategic doctrine relating energy policy to broader national security concerns.

Our fundamental energy problem is to develop an energy policy which faces the future rather than the past. Despite the existence of a temporary oil glut, the age of plentiful oil supplies is gone. An era of insecurity in world oil supplies is just beginning not ending.

It is imperative that the United States take the leadership role in developing a new policy of cooperation between the major energy producers and the energy consumers, including the Third World countries.

By taking the lead in constructing a cooperative relationship between these three groups, the United States can prevent Soviet expansionism better than any military alliance. We must not ignore this opportunity.

While we appear to have a glut of oil supplies now, the outlook for world supplies is not good. U.S. conventional oil production in the lower 48 States has peaked. Oil supplies are, and will remain, highly concentrated in a few regions of the world—principally the Middle East.

There is little the United States can do to alter this imbalance of oil power and it is time our policy reflects that. Third World nations have borrowed so heavily on international capital markets to finance the burgeoning cost of their oil imports that serious questions have been raised concerning the stability of the international

financial system should some of these countries default on their obligations.

The energy crisis has generated strains far greater than is generally perceived in our existing political alliances, threatening the cohesion of the Atlantic alliance. We believe that the world cannot survive another round of skyrocketing oil prices unless new instruments for petrodollar recycling are created and old ones are reinvigorated.

Yet in this crisis of scarcity there is opportunity for imaginative policy and creative leadership.

First, the risks of political instability in the developing countries and of an international financial crisis can be minimized by strengthening the resources of the IMF and World Bank.

Second, the United States should encourage OPEC's economic dependence on the United States because such dependence gives the oil exporters a vested interest in a healthy U.S. economy.

Third, the United States needs to work more closely with the major oil importers to insure that with the advent of a new crisis we do not embark on beggar they neighbor policies threatening to us all.

This last brings me to the main topic of this morning's hearings—the International Energy Agency.

We believe that it is especially important that multilateral energy relations—through the International Energy Agency—be strengthened at a time when bilateral energy relations are becoming increasingly contentious. Without a doubt, the IEA is at a crossroads in its development. And renewed attention must be given to its improvement.

What needs to be strengthened is not the organization itself but the commitment of the member states to using the IEA as a forum and as a tool for coping with common energy problems.

We believe that it is critical to the future stability of the international system that the industrial states develop a trilateral approach to the world's energy problems, embracing the West, OPEC, and the Third World. And despite Mr. Hormats' comments that this is long down the road, we tried this a number of years ago when I personally, myself, was in Government and it is time we resurrect those initiatives.

The IEA can be an essential part of this approach but only if it is given sufficient diplomatic and financial support.

Too often critical attention has focused on the emergency sharing program of the IEA. Certainly there are problems with the allocation program; we share the belief that the system as constituted would work inadequately in a disruption. But there still remains a need for a program.

Centering on some inadequacies in the data system, on the price questions that have been raised here today, and our own Government we have problems between State and local and Federal authorities terms of allocation systems, though we must move forward nontheless to remain committed to an IEA program.

What has been forgotten is the guiding purpose of the IEA; that is, to be a visible symbol of allied solidarity, the basis for a unified consumer nation response to OPEC that, overtime, would counterbalance producer power. We think that this should remain the purpose of the organization and that this purpose be strengthened.

First, the United States needs to reiterate its support for the principles of the IEA agreement. Statements by administration officials have cast doubt over this Government's willingness to abide by the agreement in a crisis.

Second, member states should reopen producer/consumer negotiations with OPEC to discuss the stabilization of world oil prices. We should support the initiatives of Saudi Arabia in this regard.

Third, the IEA needs to demostrate a greater concern with the energy problems of the Third World nations. It is manifestly in the West's economic, political, and military interests to create an institutional forum to help assist the LDC's in their energy problems of Third World nations, which has already been touched on, but President Reagan's administration and part of this effort changed its existing policies toward a new World Bank energy affiliate.

Fourth, a common policy needs to be developed on cooperation in Communist energy development and trade. Unless the United States sits down soon with its allies and coordinates a common approach, this issue will have grave effects on the alliance. The IEA provides a format for developing this common policy.

Fifth, the time has come to encourage France to join the other industrial nations in the IEA. At the same time, discontinuities between the EEC's emergency sharing program and the IEA's need to be coordinated.

In our prepared testimony we make specific recommendations for improvement within the IEA. While we do not have the time to address those now, I would just like to mention our suggestions that the United States support subtrigger responses to supply shortfalls, common strategic stockpile drawdown strategies, improvements in the IEA's data collection system, a more vigorous and coordinated program of demand restraint by member states, and a major emphasis on energy research and development, especially dealing with Senator Glenn's question, for renewable energy sources and new improvements in energy conservation technologies.

Finally, we must admit that the outlook for such international energy cooperation is bleak. But it is bleak because the United States appears paralyzed to act. We need to move forward and articulate a renewed approach to international energy policy.

Thank you very much for hearing me this morning, Mr. Chairman and distinguished Senators. Of course, I would be happy to answer any questions either at this time or later.

Senator PERCY. I thank you indeed. Because the outlook has been rather bleak, or lacking in sharp focus and sense of direction, we have asked you to be here. I can assure you that this subcommittee, togerther with other appropriate committees, such as Foreign Relations, will do everything we can to work cooperatively in moving the administration forward and in working cooperatively with the world community.

We share so many common interests. We either resolve this problem or the security interests of the Western World and the dynamism of its economic development could be seriously imperiled. You have addressed one of the most important and urgent problems that we face.

You have done it in an articulate way as well. We are deeply grateful to you.

[The prepared statements of Messrs. Lantzke, Deese, and Ebinger follow:]

PREPARED STATEMENT OF DR. ULF LANTZKE, EXECUTIVE DIRECTOR, INTERNATIONAL ENERGY AGENCY

I. OBJECTIVES OF INTERNATIONAL ENERGY POLICIES

Mr. Chairman, I am Ulf Lantzke, Executive Director of the International Energy Agency. The IEA was formed in 1974 and includes 21 major industrialised countries and the European Economic Commission.

Objectives

I would like to say from the outset that energy cannot be viewed as an end in itself, but rather should be considered in the overall context of economic political and security interests of the Western world. Given this framework, I see three main areas of international energy policy concern:

Establishing means for emergency sharing in times of major disruption

Given the fact that oil provides one half the energy supply of industrialised countries and given that these sources of supply are often from uncertain and in some cases unstable areas, it is essential that industrialised countries have a concept to minimise the effects of major, temporary disruptions. In times of disruption it is important that all countries contribute equally to a solution so that none of them is disproportionately burdened.

Coping with precrisis situation

We have also learned through the experience of the last two years that it does not take a major crisis in supply to upset our economies. Any shortfall, even a relatively minor one, presents a situation where some countries and/or companies may lose part of their supplies and be forced to either draw down their inventories and/or buy on the spot market. In 1979, heavy buying on the spot market provided an environment for producers to increase prices by some 150 percent over 18 months. Repeat performance of this kind should be avoided.

Promoting long-term structural change

We will never be completely assured of economic stability until our energy economies become more diversified and less dependent on oil. Our studies suggest that oil dependency can be reduced from 50 percent of total energy use today to 25 to 35 percent by the year 2000 if we pursue active development of existing alternatives (coal, nuclear power, natural gas) and use energy and oil more efficiently.

The role of the IEA

Having recognised these as the principal objectives, it is important to underscore that the means by which individual nations achieve these objectives will differ. But it is important that in seeking national solutions we not disregard the problems and potentials of other nations. It is essential to have a forum where individual nations can take cooperative international measures which support national objectives and where nations can frankly discuss national objectives and approaches which will have implications for the international community and therefore affect other nations both directly and indirectly. In my view, the International Energy Agency provides this forum.

Means

Let me briefly review for you some of the tools we apply in seeking those major objectives I have described.

Firstly, the IEA has an Emergency Sharing System which can be activated when oil supplies are reduced by 7 percent or more. The system is based upon the concept that all nations would be better off, economically and politically, if we were to share the burden of a shortfall together as opposed to a situation where some members of the group of industrialised countries would suffer disproportionately severe shortages.

Secondly, there is the recognition that while a large crisis remains possible, more frequent "minor" crises may have a higher probability. At the IEA Energy Ministers meeting last June 15 there was general agreement that this type of situation should receive further attention. When the International Energy

Program was negotiated, it was the common view that this type of situation could be taken care of by the flexibility of the market. However, we have seen some of this flexibility diminish in the past few years because producing countries are now in stronger control of oil, and the "market results"—in 1979—which led to rapid and massive oil price increases seem, in retrospect, a very costly way to deal with these types of disturbances. Nobody, including the IEA Secretariat, is really anxious to implement a rigid system for "minor crises". What is needed is better forward planning so that appropriate responses tailored to actual situations that might arise can be implemented quickly and effectively by the IEA Governing Board.

Thirdly, to provide Member governments with a common benchmark the IEA Secretariat regularly prepares analyses of world energy markets both short and long term. This provides a basis for member governments to discuss and hopefully share a common view of the energy situation.

Fourthly, to provide a basis for assessing industrialised countries' longer term energy performance, IEA ministers agreed in 1977 to a set of energy policy principles. These principles provide a framework for viewing individual country performance in relationship to the Group's effort. Each year individual member government policies are reviewed by another country. In most instances this has proven to be a lively and useful exercise. Member governments at Ministerial level have been prepared to accept criticisms of their national programmes and have taken a commitment to consider IEA recommendations in their domestic policy planning.

Fifthly, recognising the important potential role of coal in the future and the need to expand world steam coal trade the IEA has established a Coal Industry Advisory Board (CIAB). This is a unique experiment in government-industry relations at the international level. Representatives of the CIAB and Energy Ministers have met on two occasions to discuss the types of responsibilities industry and government have in realising this very important option for the future.

Sixthly, the IEA assesses the state of energy research and development programmes in Member countries each year. In response to the Venice Summit of 1980 a recent assessment of the state of play in the field of synthetic liquids and gas was prepared. In addition, the IEA serves as a coordinating body for some fifty collaborative projects, where countries share expertise, expenses and benefits in the development of new energy technologies, thus bringing down the overall cost of intensified R and D for individual countries.

Lastly, while cooperation among industrialised countries is the primary aim of the IEA, it is also necessary to consider the emerging role of developing countries. The IEA has prepared a data base for these countries, made regular projections of their energy outlook, and considers what steps industrialised countries might take to help developing countries improve their energy situation.

Mr. Chairman, I thank you for giving me the opportunity to give this broad overview. I would now like to take up specific points regarding the types of actions which could be taken to calm oil markets during disruptive periods.

From the beginning let me say that we do not believe that present conditions in the world oil market are a reason for complacency. We believe that markets are likely to tighten again once the Western economies begin to recover. Pressure could begin to mount on world oil supplies within the next two to three years. And we should always remind ourselves that any cutbacks from major producers for whatever reasons could make the slight surplus we are now experiencing disappear overnight.

IEA Energy Ministers agreed in Paris last month that this breathing space must be used wisely, both to establish better means to protect our economies against sudden disruptions and to pursue structural changes in energy economies so that the current dominating role of oil is gradually lessened.

II. STATUS OF THE EMERGENCY SHARING SYSTEM

The system

The most important objective in establishing IEA in 1974 was to prevent a recurrence of the 1973/74 oil crisis. This continues to be a major concern. Emergency preparedness is one of the most important responsibilities of IEA. The purpose of the emergency sharing system is to ensure that available oil is shared in a fair and equitable manner among IEA member countries in times of major disruptions.

To achieve this goal, the system is composed of four major components: (1) commitment to hold oil stocks of not less than 90 days' net imports; (2) commit-

ment to reduce demand—the amount depending on severity of a given situation; (3) equitable allocation of remaining oil supplies and (4) an international data reporting system based upon submissions from about 50 oil companies covering 80 percent of international oil supply.

To complement the international emergency sharing system, most Member countries have developed a compatible national system for distributing oil internally.

System readiness

The system has been tested under simulated crisis conditions three times over the past several years. As a result of the tests, the major components of the system are constantly being modified to keep them in line with changing oil market conditions.

The most recent test, held last October and November, proved conclusively that mechanically and operationally, the Emergency Sharing System will perform as envisioned.

The recent test showed that changing patterns of world oil supply are not a major problem. While major oil companies may not control as much oil production at the wellhead as they once did, they are still the primary distributors of crude and products. Even if the major oil companies did lose significant amounts of crude imports (which to date they have not), sharing would still proceed via the reallocation of products.

Certainly a major concern of IEA Member Governments is the potential allocation of their own oil. I can assure you that this concern is not only held in the U.S. First of all, it is important to remember that the U.S. itself could be the target of another selective embargo. In such a case, the U.S. would receive oil from others. On the other hand there are cases where the U.S. might have to give up some of its imported oil to assist other countries. But even in these cases the U.S. stands to benefit in some respects. First, U.S. participation would help maintain the security, economic and social stability of other industrialized countries. Secondly, the U.S. economy would benefit from the dampening effect on prices which would result from the IEA emergency system. So as you can see it is not a one way street. Given the wide range of possible upsets in the oil market, I strongly believe that, like in 1974, if we did not have the system we would have to invent it.

In concluding on this point, let me stress that the Emergency Sharing System is a vital element of international economic cooperation. With its effective operation, detrimental economic repercussions are avoided. It is operationally sound, problems which do exist are being carefully considered and remedied. I hope that we never have to trigger the system. But in the event that it is required, I am confident that it will perform as expected given the political support and international cooperation which is vital for the success of our economies.

III. THE PRECRISIS SITUATION

I understand, Mr. Chairman, that my testimony today should also focus on situations of a more minor shortfall which are not sufficient to trigger the emergency system, but which do represent threats to the well-being of our economies. This type of situation has many names—precrisis; subcrisis; pretrigger, to name a few.

Experience showed in 1979 that it does not take a major oil disruption to put pressure on world oil supplies and prices. With the Iranian revolution the world had a temporary loss of about 2 million barrels of oil per day. This was not an amount sufficient to allow triggering of the Emergency Sharing System, but it was sufficient to create an overall situation in which some national and company responses resulted in significant pressure on available world supplies. In the end the shortfall was shortlived. But overly competitive attitudes and very large stockbuild largely precautionary, but to some extent speculative as well provided an environment in which major producers could increase prices some 150 percent over 18 months.

We are still suffering from the economic consequences of the events of 1979. Nevertheless, some valuable lessons have been learned.

When the Iran and Iraq conflict began in September 1980, industrialised countries, in the IEA and the EEC, promptly decided to draw down their stocks, as opposed to buying heavily on the spot market to make up for the shortfall. They also agreed to discourage abnormal purchases and to overcome any imbalances between companies and/or countries which might put undue pressure on oil markets. IEA Member nations honored their commitments. These actions,

coupled with responsible actions by some of the major producers, prevented a repeat of the 1979 situation.

The IEA is presently reviewing the experience over the last two years to try to refine and improve the tools that can be introduced speedily and effectively in order to prevent price rises during periods such as these.

Since December of 1980, a High Level Ad Hoc Group of IEA countries has been studying the system.

Ministers at the June meeting in Paris expressed the view that the full implementation and strengthening of market forces in consuming countries would have a major role to play in such circumstances.

However, as I have suggested above, experience also shows that the results of relying only on market forces may, under certain circumstances, be harmful to the collective interests of industrialised nations, and, indeed, to the world economy. It needs to be borne in mind that the world oil market is characterised by a high degree of political control over supply. In such circumstances, market forces can really act only on the demand side, particularly in the short-term, and the result can be—as we have seen—extraordinarily large and costly increases in oil prices. It is therefore only prudent for nations to prepare contingency plans, including the possibility of collective government action, which could be brought into effect to supplement market forces.

The approach currently under consideration at the IEA is a flexible one. The only measures which would be automatically initiated at the onset of a disruption would be analysis and consultation. It would then have to be determined by the Governing Board whether further measures to relieve price pressure would be appropriate.

At their June 15, 1981 meeting, IEA Ministers agreed that the Ad Hoc group should continue its work on the following outline in order to arrive at definitive results to be taken by the Governing Board in the second half of 1981:

Firstly, continuing monitoring of the market, so there can be quickly available an analysis of what a particular interruption means.

Secondly, the establishment of a data system, also for use in normal market conditions, which doesn't overburden industry, governments or the Secretariat by a flood of numbers. Thus, the thought is to develop for "normal times" an simplified reporting system.

Thirdly, drawing on experience from the past, standby measures or procedures to prevent market forces from resolving the situation at costs that may be unacceptably high. These would include, inter alia:

Use of stocks;

Short-term demand restraint;

Increased indigenous production;

Discouragement of speculative or otherwise undesirable purchases, including abnormal spot market purchases;

Dealing with supply imbalances among IEA members, so as to avoid pulling the selective trigger under the IEP wherever possible.

The whole system can only work if there is a well established understanding among governments and also between governments and the oil industry. At the June Ministerial meeting there were no proposals to take decisions in order not to preempt consultations which are going on with the oil industry on this topic. In this respect it is necessary to establish some kind of support from the oil industry, and some definition of responsibilities for "minor crises" as there may be some areas where government and oil industry objectives may not be in complete harmony. It is the responsibility of each national government to decide how best to establish its own industry ties. From our experience in the past I would anticipate that it would be sufficient to have voluntary cooperation from industry during these pre-crisis situations.

IV. U.S. PARTICIPATION IN THE IEA

I would like to conclude my testimony, Mr. Chairman, with some comments on U.S. participation in the IEA.

The U.S. is the largest consumer and producer within the IEA group of countries. Therefore what the U.S. does or doesn't do in a purely energy sense is of significance to every other industrialised nation.

The U.S. has both a key domestic and international role. Domestically, it is important that the very substantial progress made over the course of the last two years to use energy more efficiently and to promote development of alternatives be sustained and built upon. U.S. domestic energy policy is moving towards a more market oriented thrust. This is most welcome. However, it is

imperative in this process not to lose sight of legitimate areas where government action can reinforce and speed up market forces. The need for balance in the mix of policies is fundamental.

Internationally there are six vital areas where U.S. efforts could concentrate to assist is shaping economic, security, and strategic issues affected by energy developments:

First, it is essential that the United States stand by its commitment to the International Energy Program to abide by the principles of the Energy Sharing System. The build up of the Strategic Petroleum Reserve is welcome and necessary. But, I would further welcome the reconsideration of conditions in which the SPR can be used. More flexibility in its use is important.

Secondly, the U.S. should continue to work in a cooperative manner with other IEA countries to prepare effective means for coordinating actions during times of pre-crisis. The work in this area is far from finished. Active and supportive U.S. actions are critical. Especially important are sound and effective U.S. government-oil industry relations.

Thirdly, the U.S. should develop complementary emergency preparedness programs at home to ensure domestic U.S. commitment to the total effort of industralized countries, in times of major disruptions.

Fourthly and this is primarily a longer term objective, the U.S. should continue to pursue an active and open trade policy toward coal exports. The U.S. has important responsibilities and opportunities for assisting Europe and Japan to diversify their energy economies by greater use of U.S. imported coal. Last year exports were up by 40 percent. Bottlenecks did occur—especially in ports, but I am encouraged that private industry is taking steps to remedy infrastructure problems. There is a keen interest in Europe and Japan in U.S. coal and this early momentum must be sustained and built upon.

Fifth, strong and clear support for nuclear power is essential. Guidelines clarifying the U.S. position on nuclear fuel and technology trade would also greatly assist international efforts to realize the full contribution of nuclear energy.

Sixth, the U.S. should continue its leadership role in the field of energy research and development. The challenge for the 1980's is to test, refine and develop promising technologies so that they will be in a position to contribute, as needed, during the 1990's. Industry has a vital role in this process. Higher prices have made new technologies much more economically promising in some cases. On the other hand, continued government support of expensive and long term technological options where payback is beyond that of interest to industry but where long term contribution could be significant would help supplement the private sector's efforts.

V. CONCLUSION

Mr. Chairman, there are reasons to be cautiously optimistic about the energy future. Considerable progress has been made over the last seven years. We are beginning to see signs that oil consumption in many countries and sectors is being reduced. Industrialised countries were much more successful in weathering the oil market storm of 80/81 than in 1979.

Still, we must continue our efforts and not lose sight of the fact that energy remains the greatest threat likely to confront our economic systems during the 1980s.

Strong leadership by the United States is essential in maintaining energy and economic equilibrium. The U.S. national interest in the IEA was well appreciated by the United States in 1974 when it took the lead in establishing the Agency. The U.S. interest is even greater today and might well be expected to increase during the years ahead.

Prepared Statement of David A. Deese

Mr. Chairman, I am pleased to participate in this important hearing. I strongly support the efforts of your self and Senator Bradley in energy and security policy, but I fear that our government as a whole remains unprepared and unable to meet a serious threat to our naticnal security. It is my personal judgement that the United States is actualiy more vulnerable to energy shocks and wars than our allies, who are clearly even more dependent than we are on imported oil supplies.[1]

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[1] I define energy "dependence" as the simple quantity of energy supplies that a country imports; energy "vulnerability" is a country's actual liability to damage from supply disruptions after considering broader economic, political and military factors such as the effectiveness of emergency preparedness programs.

The careful definition of these energy and security threats and possible responses has been the focus of my professional endeavors over the past two years. I am Assistant to the Director at the Center for Science and International Affairs in the Kennedy School of Government at Harvard University, where I conduct research and teach energy policy and foreign policy. As Director of Harvard's Energy and Security Research Project, I recently edited a book with Joseph S. Nye, entitled "Energy and Security" (Cambridge, MA: Ballinger, with Harper and Row, 1981) which reports the results of our first year of research. Your committee staff was most helpful in critically reviewing this book; I have a short article based on the book which can be included in the record if you so desire. We are now completing the results of our second year, with emphasis on two specific sets of issues: political military policies to address Western vulnerability to Persian Gulf oil; and political economic policies for strengthening and progressing beyond the emergency preparedness program of the International Energy Agency (IEA). While my testimony concentrates on international political economic problems, especially the IEA, I will return briefly to several closely related broader questions of global energy and security.

Some analysts, now finding support in the Western media, seem to be once again falling prey to a dangerous glut mentality. World oil supplies are indeed temporarily in surplus as the major oil exporting nations compete in a buyer's market. Real prices of petroleum products have levelled off, or even fallen in some cases. Predictions of greatly reduced rates of growth in demand for oil in the Western industrial nations, combined with descriptions of OPEC in disarray, seem to offer more comfortable economic and security conditions in the 1980s.

Nothing could be more wrong or potentially destructive. While there certainly have been important changes in our domestic and international energy situations since the mid 1970s, we may well be setting our selves up for the same type of rude awakening to severe energy shocks experienced as a result of the Iranian Revolution of 1979. That disruption was very small in comparison with today's range of highly possible events, and yet it produced sharp and highly damaging consequences for many oil importing countries. The next interruption could well stress domestic and international systems to the point of international financial disarray, further political upheaval in sensitive regions of the Third World, or even war at a regional or worldwide level.

The current softening in world oil markets can be traced principally to three temporary factors which have little to do with Western governments' policies. The life expectancy of the sharp increase in Saudi oil production can certainly now be measured in months rather than years. The very high levels of oil stocks that also helped offset the effects the Iran-Iraq war are now decreasing. Finally, sharply reduced consumption of oil in the West is clearly due in part to progress in conservation, but it is also based on a terrible record of economic growth over the past few years which nations worldwide hope and expect to leave behind in the coming months.

MEETING THE ENERGY AND SECURITY THREAT

Domestic and foreign political economic policies must be guided by several fundamental principles. Time is critical in dealing with the price and access problems of oil supply disruptions. To be effective, standby measures for quickly increasing supplies or reducing consumption, such as stock withdrawals or combined tax or free market/rebate programs, must be ready to go at, or even before, the start of a crisis. Leadership with have to be strong and clear if the psychological causes of panic are to be overcome. Free market approaches to oil pricing and allocation as opposed to direct government price regulations and distribution are absolutely essential for dealing efficiently and equitably with the problems caused by emergencies.

The Bradley-Percy sponsored-Emergency Preparedness Act of 1981 provides an excellent starting point in the United States for free market emergency allocation, with prudent public sector back-up provisions for assisting low-income individuals and providing essential services. This approach must be coupled closely with policies carefully designed to project both the reality and the perception of equal sharing of hardships. Finally, coordination, if not serious cooperation, among the major oil consuming nations is absolutely essential to our ability to cope with oil supply disruptions.

My definition of problems and prospects of the IEA emergency system derives from five observations. First and most basic is the well established proposition that nations only make serious commitments to international organizations for problems they cannot solve alone. Herein lies both the expectation and the need for strengthening the IEA system in the 1980s. A closely related second

proposition is that the IEA sharing system has been and will continue to be important without the triggering of the formal framework. Reviewing past crises, we must constantly ask the question—would we have been better or worse off without the IEA system? During the critical period of the Iran-Iraq war in 1980–1981 the IEA contributed to controlling prices on the spot market and persuading national governments and oil companies to draw down oil stocks.

Third is the almost complete inseparability of domestic and foreign energy and security policies. If the United States in particular is not prepared at home, then it cannot lead in the IEA and that system will never function effectively. Strong domestic energy and security policies are the fundamental prerequiste to an effective IEA system, which in turn serves as the second line of defense before having to resort to the use of force to protect vital national interests in the Persian Gulf. Even during a war involving the United States, the IEA framework would prove invaluable in the scramble to meet dramatically increased liquid fuel needs.

The fourth observation holds that we have over-regulated our domestic oil market, while pursuing dangerously laissez-faire international oil policies. Neither a return to the complete U.S. dominance of world oil markets of the 1950s nor complete reliance on the "free market" internationally is possible.[2] Although private sector actions such as building and using oil stocks are generally the most efficient and physically secure approaches on both domestic and international levels, world oil markets are different from those in the United States. During emergencies there is no central authority to settle disputes and protect vital interests. Countries and companies all struggle to survive under even relatively small disruptions. Some OPEC nations have taken intentional hostile actions not only during embargoes but also in chaotic, unintentional emergencies such as the Iran-Iraq war. Even the largest mulinational oil companies may not, for example, be able to work around an increasingly tight set of political and economic restrictions on destinations, transport modes, and refineries. International coordination efforts also face wide variance in the type of domestic oil markets among even the large consuming nations, including dimensions such as government intervention in pricing, the presence of international companies and the availability of indigenous oil supplies.

What then are the strengths of the IEA's emergency response system? The system, which is described in detail in prior testimony today and in the literature, is self-triggering to an extent that approaches a true collective security arrangement even more than the United Nations Security Council. A loss of oil supply by any member country can, by an independent finding of the EIA Secretariat, be treated as a common threat requiring joint oil sharing action. A reversal of this Secretariat finding by the IEA's Governing Board requires a majority of votes such that no single member country has veto power. Under these conditions, the Secretariat has wisely been both demanding and objective in its assessment of individual national requests concerning possible oil sharing assistance and the system has never been formally triggered. Between 1977 and late 1980 at least nine specific cases were discussed in the IEA, with only one formal request for a trigger—from Sweden in 1979, but in restrospect none of the cases justified formal action. Informal action by governments and companies coordinated through the IEA was helpful in several cases where technical or temporary conditions caused a shortfall in a nation's oil supplies. The failure to provide more rapid assistance to Turkey in late 1980 rests much more with the United States, which assemed responsibility for supplying that country's oil shortfall, than with the IEA.

There are several other important aspects of the IEA system. Its Secretariat is relatively small and experienced. In addition to its operational data base, which is built on its two questionnaires sent to companies through national governments, its quarterly and annual forecasting system, and the rapid ad hoc reporting methods for crisis management, the IEA maintains a large set of quarterly and annual statistics which provides a completely uinque historical reference capability. It is extremely important to build on this base now and encourage companies and governments to keep the IEA data systems current and well tested in preparation for the next energy emergency.

Finally, the IEA has built a strong set of working relationships between its Secretariat and the oil companies, and among officials from the member governments. IEA agreements have helped national governments take difficult energy

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[2] See the skillful elaboration of this point in Robert O. Keohane, "Coping with Oil Supply Interruptions and Embargoes," unpublished conference paper, 1981.

policy steps at home on issues of oil import reduction, product pricing, longer term energy research, development and production, and the particularly important step of building oil stockpiles. Periodic testing provides impetus for reforming internal IEA problems, national procedures, and coordination among countries and companies. The dramatic and costly inability of the IEA to hold down prices in 1979 was at least partially offset by its ability to learn, adapt, and play an important role in avoiding another oil crisis in 1980–1981.

What are the key weaknesses of the IEA emergency response system? First, of course, is its only marginal ability to curtail sharp oil price increases, which derives from our failure to predict that small distruptions in supply, combined with low stock levels (as occurred with the Iranian Revolution) could result in large price consequences.

A French proposal in 1979 to require national governments to limit the prices paid by oil companies on the spot market was rejected at the European Community summit by Britain, the Netherlands and West Germany; and the Tokyo summit in 1979 produced only agreement to maintain a register for oil bought in the spot market. The IEA Ministers were able to help hold down prices during the early stages of the Iran-Iraq War by pushing for the use of oil stockpiles which had been built up during the first Iran crisis and by limiting highly damaging spot market purchases—sometimes followed by Secretariat pressure at very high levels of national governments. Now we must give the IEA support in overcoming the opposition of some governments and companies to a more formal IEA role in shaving the peaks of sharp price increases caused by crisis conditions in the world oil market.

The second weakness resides in the fundamental building blocks of the IEA system—national emergency response programs. Without stricter and better enforced national guidelines for actually holding and using stocks of readily available oil (at least 90 days of oil imports equivalent in useable stocks), allocating scarce supplies during emergencies, conserving supplies with emergency measures, and educating leaders and public interest groups, the IEA system can never function effectively in oil disruptions significantly larger than those of the past.

Other important weaknesses involve everything from the complexity of the IEA sharing agreement, which impedes understanding and education, to the rapid evolution of the world oil market. Building on the important efforts of this Subcommittee, we must also take steps to relax U.S. anti-trust restrictions on IEA operations during tests and sub-trigger crises. Current regulations cripple IEA data collection efforts, oil sharing possibilities, and collective actions such as coordinated stockpile management. New legislation may well be the only effective means to solving this problem.

All IEA members, but especially the United States, must be willing and able to increase the flexibility of international oil markets by efficiently allowing exchanges of crude oil, such as those involving Alaskan supplies. Serious attention should also be given to expanding the application of IEA measures to non-member nations, especially France and important oil-importing less-developed countries such as Israel and Brazil. Non-reporting U.S. companies must be better integrated into emergency procedures. Most important of all, the United States and its Summit partners should devote even greater attention to building confidence in the IEA system. Without greater confidence in the IEA's ability to manage intermediate-size disruptions, member nations may well quietly fail to execute their obligations at precisely the moment when each needs collective action the most.

At least five further energy and security steps demand immediate attention. I will refer only briefly to these steps which are treated in much greater detail in "Energy and Security," other published studies, and papers forthcoming from our research project. First, in the United States and elsewhere we urgently need to strengthen coordination between domestic and foreign policies. It is essential that we have confidence in our domestic emergency preparedness both to prevent precipitous military action and to provide logistical support for essential military measures in the Persian Gulf. Second, we must have the foresight to support energy emergency preparedness and longer term energy development in the oil-importing less-developed countries. Without a strong World Bank energy program and much more bilateral assistance, for example, many of these countries will encounter increasingly unmanageable economic, political and security conditions in the 1980s.

A closely related third step is thorough review and prudent strengthening of the capacity of the international financial system to withstand future energy price shocks. Fourth, in close cooperation with our allies and NATO, we must extract from current and near term future military capabilities the capacity to quickly and flexibly deploy forces in a wide variety of circumstances, without contributing to the outbreak of domestic and regional conflict in the Persian Gulf. Finally, we can immediately formalize the Summit energy ministerial group to supplement the IEA and address the broader issues of global energy security.

PREPARED STATEMENT OF CHARLES K. EBINGER AND RICHARD J. KESSLER

GLOBAL ENERGY SECURITY: FUTURE DIRECTIONS FOR UNITED STATES POLICY [1]

Introduction

The United States needs to formulate a new strategic doctrine relating energy policy to national security concerns. Today, our fundamental energy problem is to develop an energy policy which faces the future rather that the past. The age of plentiful oil supplies is gone. Yet, with newspaper headlines proclaiming a world oil glut presaging the end of the OPEC cartel and with energy experts stating that the United States can see the "light at the end of the tunnel" in its energy crisis, it is easy for policymakers to take no action, when action is most needed.

The era of insecurity in world oil supplies is just beginining not ending. The nature of the challenges posed to the global community by the energy crisis make it impossible to view our energy dilemma exclusively within either a parochial domestic political context or as an isolated economic, social, political, or strategic issue.

The energy crisis is global in scope both in terms of its economic and its environmental impacts. For example, the movement of acid rain across frontiers is already causing conflicts in U.S./Canadian relations and will become a major issue of international diplomacy during this decade.

The energy crisis affects the international economy through vast transfers of petrodollar wealth among nations and by depleting already scarce resources available to Third World nations to finance their development programs. Since 1973, the non-oil developing countries have borrowed almost $350 billion to finance their balance of payments deficits.

The Third World nations now require about $60 billion a year in new credits simply to pay for their oil imports. Since 1973, the annual debt servicing requirements of these nations has risen to a staggering level of $75 billion. Debt servicing obligations and new oil import expenditures consume almost fifty percent of the total annual export earnings of more than 20 Third World nations. These nations have entered an economic cycle where they must either continue to borrow heavily or reduce the level of their imports and see their already low living standards even more curtailed.

The Third World nations are heavily indebted to western banks. Indeed, the nine largest U.S. banks have almost twice their total available capital invested in loans to Third World nations. The debt of these nations to western banks is growing at 25–30 percent per year and is in our view sustainable only as long as the rapid rate of inflation steadily reduces the real economic burden of their accumulated debt. When this ceases to happen, the short term political temptations for a nationalistic leader in an endemically poor nation to repudiate his country's debt could prove overwhelming. Such an action would send tremors throughout the global financial system.

The rapid rise in oil prices has had other effects on the economies of Third World nations. The skyrocketing rise in the import price of petroleum derived fertilizers has led to chronic food shortages as fertilizer imports have been curtailed. These shortages have led to attendant migrations of people both within nations and across international frontiers. This movement of people has sparked social, economic and political tensions that threaten local, regional and global stability. Our own country has not been immune from these pressures as evidenced by the desperate attempt of Haitian refugees and other Caribbean peoples to enter our territory.

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[1] This assessment will appear in a more elaborated form in "The Critical Link: Energy and National Security," Charles K. Ebinger, Richard J. Kessler, Eugenie Maechling, eds; Ballinger's, Cambridge, MA. 1981.

The energy crisis has sparked incidents of international terrorism by disaffected groups against energy facilities so important to the maintenance of advanced industrial nations. These incidents include attacks against nuclear installations threatening to unleash a new dimension in international and domestic conflict. Warfare between states over resource-rich territory threatens the sanctity of international boundaries.

The energy crisis has generated strains in our existing political alliances and engendered the need for new political relationships with states sometimes hostile to long-standing allies. In its effort to effect a new strategic consensus with the major Arab oil producers the United States has found that the consummation of such relations antagonises Israel. In its efforts to balance its relations with the Arab world and Israel, Washington often incurs the anger of both camps as well as that of its major industrial allies who see U.S. policy as threatening to their interests.

Similarly, in its move to implement better relations with states opposed to Soviet and Cuban adventurism, the United States runs the serious danger of alienating friendly states such as Nigeria, the second largest supplier of crude oil to the United States. Nigeria has warned the Reagan Administration that any attempt to improve relations with South Africa could jeopardize the flow of Nigerian oil as well as access to a valuable market for United States exports. Despite these warnings, the new Administration has done little to allay Black Africa's fears concerning the thrust of U.S. African Policy.

Finally, the energy crisis has added another dimension to the global rivalry between the superpowers. The prospect of rising East Bloc dependence on imported oil from the Persian Gulf during this decade poses profound questions for the United States and its major allies over the proper policies to adopt towards the East Bloc's burgeoning energy crisis. The critical policy questions confronting us center on what actions we should take if the Soviet energy situation transforms Moscow from a sizeable oil exporter (3 mmbd) to a net oil importer: Should the Western world provide the U.S.S.R. with oil technology to reduce political and economic pressures on a tight world oil market? Will such technology reduce Moscow's need to move into the Persian Gulf either commercially or militarily to insure its access to energy supplies? With aid from the industrialized world, would the Soviets more likely concentrate capital in domestic energy production than in military expenditures? Will technical assistance convince Moscow to abandon political and military solutions to its energy problem? Will the extension of technology give the industrialized nations more political leverage in their dealings with the U.S.S.R.? How much will aid to the U.S.S.R. benefit U.S. commercial exports? In our rush to acquire such benefits will the strategic vulnerability of Western Europe and Japan be enhanced or mitigated?

Despite the serious nature of the challenges posed to U.S. foreign policy by the energy crisis, there is a dangerous tendency in our nation today to become complacent about our energy situation. Already many leading financial institutions have proclaimed the energy crisis to have passed. Reports of an "oil glut" permeate the press. Some oil company officials are again encouraging consumers to buy gasoline. This attitude represents an abnegation of statemanship which can only breed cynicism among the American electorate. Recent statements along these same lines by U.S. government energy officials can only confuse the American public.

Too often, the short term oil market is confused with long term trends. The long term trend is for oil, a scarce resource, to become scarcer. It will also remain a resource controlled by a few countries rather than many. This does not mean increases in world oil prices cannot be restrained, only that policies to reduce demand must recognize underlying market conditions. It does mean that the present oversupply of world oil is only temporary. We have a moment of respite before the market tightens again; we must use this time to best advantage. Oil supplies are, and will remain, highly concentrated in few regions of the world. According to a Rand Corporation 1980 survey, at least two-thirds and perhaps as much as four-fifths of the oil that will finally be extracted has already been discovered. OPEC countries account for 77 percent of the non-Communist proven world's oil reserves and 60 percent of its proven natural gas reserves. Domestically the United States cannot alter this imbalance of oil power.

U.S. conventional oil production has peaked. Exxon's latest projection sees existing reserves contributing only 5.8 million barrels per day by 1990 (down from 10.1 in 1980), with other supplies and new discoveries only contributing an additional 1.3 million barrels per day. OPEC will continue to dominate global oil trade throughout the rest of the century and the United States will continue

to depend on oil imports to satisfy a significant proportion of its crude and product oil demand.

The challenge to the United States is to develop a policy which, while recognizing these constraints, works at the margin to enhance flexibility for energy use in the market place. Such flexibility is not impossible if the United States moves forward on several fronts. These include both the development of energy resources and the building of an effective response to any future oil disruption.

Today we would like to address these issues in their international context. Focussing on the present state of global energy security and the potential for greater world stability or instability, we propose to discuss how U.S. policy can foster a more peaceful world energy environment.

Relations with other oil-importing countries

The United States continue to neglect the many opportunities open to it internationally for improving its energy security. Nowhere is this failure more manifest than in the inability of this Administration, and previous ones, to articulate a constructive policy towards the oil-importing developing countries and the International Energy Agency. We cannot understand how policies which are so clearly in the United States' interest all too often are relegated to the sidelines of U.S. energy policy formulation.

Future outlook for international financial stability

In the past it has been easy for American policymakers to say that no official action was necessary, that the international banking system could cope with the twin problems of rising oil prices and world debt. It was easy because that was what happened. Such is not the outlook for the future.

In the first oil shock of 1973–74, the international financial system was able to cope successfully with the flood of petrodollars by loaning them out to countries choosing to maintain growth rates rather than deflate their economies. These large borrowers were the non-oil-developing countries and the smaller industrial states. By 1979, the surplus had disappeared. Of course, several other factors were important: states were willing to borrow at commercial rather than concessional interest rates and borrowing was primarily used to expand export capacity, thus providing additional foreign exchange. Also, OPEC countries proved to have an astonishing ability to absorb imports. Finally, the decline in the real price of oil after 1974 was a major contributor to the world's economy's successful adjustment. But these conditions will not obtain in the 1980s.

The outlook for adjustment in the 1980s to the 1979–80 price escalation is not good. Of basic importance is the fact that the OPEC countries have changed their policies. Producers have come to realize that they can achieve higher revenues by selling less oil, rather than more. Most of them have become concerned about the conservation of their scarce resource. It also seems unlikely that OPEC's demand for imports will continue to grow at the same rate as previously. The Iranian revolution illustrated to many leaders the danger of rapid industrial growth. There will be a new emphasis on social services, requiring less foreign exchange than major industrial projects. Oil in the ground is also being viewed as preferable to accumulation of financial assets not only because of the inflation-induced deterioration of purchasing power, but also because of political considerations. Oil cannot be blocked as can financial assets in the event of economic warfare by industrial states.

If the real price of oil increases on average 2 to 3 percent annually during most of the decade, as some analysts indicate and as OPEC strategy appears to be, it is unlikely that even these modest increases will be able to achieve international financial stability in the 1980s. A major supply interruption—which is likely given past experiences—will upset these extremely conservative conditions. Only if there is no change in the real price of oil or a decline in price is there any hope that the world economy will successfully adapt to the rapid increase in world oil prices. Even so, the adjustment procedure will be different and pose greater difficulties than in the past.

Borrowers of the 1970s will be less willing and/or less able to borrow in the 1980s because of previous high levels of debt and the increasing burden of debt-servicing. As the 1980s progress, the LDCs will rely more on slower gowth to balance their external-payment position. Insofar as the LDCs reduce their payments deficits by downward internal adjustment of growth, the burden of the persistent OPEC surpluses will be borne by the industrial countries whose deficits will be augmented by declining exports to the LDCs.

Recycling problems will cumulate if the real price of oil continues to rise. The basic problem of the LDC borrowers will remain: they will borrow not to increase

productive capacity but primarily to retain levels of output already achieved. Their problems, like those of all oil importers, are structural in nature, and any structural adjustments will tend to lag behind the need for them if real oil prices continue to rise. Intergovernmental debt can be forgiven, but commercial banks cannot afford such luxury.

As noted, in our introduction, the level of lending by commercial banks to a small number of developing countries is unprecedented in this century. The risk this entails has heightened the awareness of the commercial banking community of its vulnerability to political upheavals abroad. The hazards of lending are enhanced by the unusual degree of interdependence among international banks. No one knows how much any one bank might lose if another participating bank fails.

What are the possible solutions to this dilemma: First, the risks of political instability in the developing countries and of an international financial crisis can be minimized by less reliance on the commercial banks in the recycling process. Strengthening the resources of the IMF and the World Bank for coping with structural problems of the LDCs by drawing on additional OECD and OPEC resources is an obvious possibility. Second, the United States should encourage OPEC's economic dependence on the United States, including OPEC investment in U.S. assets, because such dependence gives the oil exporters a more potent vested interest in a healthy U.S. economy. Third, the United States needs to work more closly with the major oil importers. Acting in concert, the ability of the oil consumers to influence OPEC would be vastly enhanced. It is impossible not to observe how closely all these problems are interwoven. Yet, this means that the possibilities for constructive change are also intertwined. This can be clearly seen in the issue of Third World energy development.

Oil supply diversification: The Third World

The plight of the oil-importing developing countries has been noted before: the crushing international debt, the crisis in fuel wood, resulting famine and migration to urban centers—adding to the poverty there. These problems are clear to anyone willing to venture forth from their Hilton Hotel suite. Yet, what has not been so clearly heard is the benefits accruing to U.S. security in improving the lot of these most seriously affected countries. By helping these countries develop their own energy resources, the United States not only helps them, it helps itself.

The last few years have seen a major increase in oil production outside the Middle East. OPEC's share in free-world output fell from 63.4 percent in 1979 to 59.4 percent in 1980, when output for every OPEC nation but Saudi Arabia declined. In 1980, OPEC produced 26.8 million bd, an eight-year low, while the rest of the world produced 32.6 mmbd.

The United States should encourage this trend. By diversifying suppliers, the West lessens the potential for any one country or region to jeopardize the world's energy supplies. We should encourage production increases not only in the Middle East but in other parts of the developing world.

This will require a change of U.S. policy toward the developing world, including an end to woefully inadequate levels of bilateral and multilateral development assistance. The Europeans in the Lomé Convention and in other multilateral agreements have long recognized that there is a quid pro quo for gaining access to raw materials in developing countries, and that is opening up their markets to LDC goods, assisting them with technology transfer and other assistance, and helping to stabilize market prices for fluctuating primary-product exports. Other countries have taken the lead in energy diversification. The United States to date has done very little.

What can it do? First, Washington can encourage multilateral development efforts such as the World Bank proposal for an affiliate lending agency for energy development. Not only can this agency help to develop energy resources all over the world—Gulf Oil has a project in Pakistan, established with World Bank aid—but the Bank can act as an honest broker between the companies and the consumers, alleviating the developing countries' fears of multinational corporations and alleviating the oil companies' fears of nationalizations.

The United States can also provide more bilateral assistance for the development of conventional and unconventional energy resources in developing countries. All too often bilateral aid is viewed in this country either as a "giveaway" program or as a tool for bribing Third World states into supporting U.S. foreign policy interests. In fact, technical assistance for energy development provides a market for U.S. goods and services, while aid helps maintain the economic and social stability of states important to U.S. national security. Without energy development, the economic systems of many of these states would collapse,

posing potentially-catastrophic problems for the international banking system, alluded to earlier. In the future, developing countries may become sizeable markets for U.S. coal exports and energy technologies, especially technologies to harness renewable and unconventional energy resources. The federal government needs to aid such ventures, rather than curtail such foreign assistance.

In this regard, we hope the Congress will reexamine the budget proposals of the Reagan Administration for cooperative energy projects with the nations of the Third World. The present proposals calling for the termination of almost 60 such existing agreements must, in our view, raise questions in the minds of Third World leaders about how serious the United States is in aiding their development efforts. Despite announced plans to foster Caribbean energy and economic development to improve living conditions as a bulkwark against Cuban and Soviet adventurism, the Reagan Administration's opposition to enhance funding for the activities of the Inter-American Development Bank, and the World Bank energy affiliate cause skepticism in the Carribbean region about the real motivations behind current U.S. policy. We urge the Administration to reconsider its policies towards these important institutions.

Every extra barrel of oil produced outside the Middle East diversifies not only U.S. supplies but also that of its allies who depend to a much greater degree than America on Middle Eastern oil. It would also be to the United States' advantage to diversify its LDC suppliers. Currently, we depend on Nigeria for roughly 23 percent of our non-Middle Eastern oil imports. We should not be so dependent on any one producer in the developing world.

Finally, it is imperative that the United States develop a cooperative relationship with the developing countries in energy before the era of "resource wars" is really upon us. The Third World is the fastest-growing consumer of energy. According to Exxon's latest projections, Third World energy demand will grow at greater than 5-percent annually through 2000, increasing their share of total world energy demand from 12 percent in 1979 to at least 20 percent by the end of this century. This change in energy trade has important political implications for international relations: the industrial and developing world will be competing for the same scarce resource.

The outlook for international energy cooperation

Continued cooperation among the major industrial oil-importing nations is imperative. It is especially important that multilateral energy relations—through the International Energy Agency (IEA)—be strengthened at a time when bilateral relations are becoming increasingly contentious. Given the current state of U.S. bilateral relations with Canada, Western Europe, and Japan on energy issues, it is extremely dangerous to rely exclusively on bilateral ties.

Rather than discuss the problems of U.S. bilateral energy relations with its allies—these should be the focus of other hearings—we would like to review the status of the IEA and make recommendations to strengthen it.

Without a doubt, the IEA is at a crossroads in its development. Renewed attention must be given to its improvement.

What needs to be strengthened is not the organization itself—we do not want to see another international bureaucracy develop—but the commitment of the member states to using the IEA as a forum and as a tool for coping with common energy problems. The importance of the IEA as a political forum and as an economic tool has been neglected.

It is a political forum providing the structure within which the member states can agree on a common strategy toward OPEC, the oil-importing developing countries, and the communist bloc. It is an economic tool that can be utilized to formulate approaches to managing an energy disruption and to accelerate the exploration and development of conventional and unconventional energy resources.

We believe it is fundamental to the future stability of the international system that the industrial states develop a trilateral approach to the world's energy problems, embracing the West, OPEC, and the Third World. The IEA can be an essential part of this approach but only if it is given sufficient diplomatic and financial support.

Too often critical attention has focussed on the Emergency Sharing Program (ESP) of the IEA, the part that attempts to allocate supplies worldwide in a disruption. Certainly there are problems with the ESP; we share the belief that the system as presently constituted would work inadequately in a disruption. The very fact that the system has never been used despite several close-calls is indicative that member states also fear it will not operate promptly.

There are several problems with the program. First, since 1974, there have been substantial changes in the oil market which may have reduced market flexibility. For example, the increasing use of oil-destination clauses by producing countries may hinder the system's ability to respond. Second, an allocation system presumes some type of price controls. With no price controls, the free market would equilibrate supply and demand and thus there would be no need for a sharing program. Although the IEA has now established a Dispute Settlement Center to resolve pricing differences, there are major difficulties to be overcome in achieving price agreement in an emergency. The permutations of the allocation methods—intra- and intercompany shifts, company-to-state agreements—provide considerable opportunity for pricing controversies. We find it hard to understand that if the free-market system is not the most efficient allocator of supplies domestically, why this is not so internationally.

There still remains a need for an allocation program, but it is obvious that a major rethinking of our approach needs to be undertaken in light of the changes to world pertoleum markets since 1974. Yet, what is forgotten is the guiding purpose of the IEA. It was not just to allocate supplies. It was to be the basis for a unified consumer nation response to OPEC that, over time, would counterbalance producer power, placing downward pressure on oil prices. From the outset, the IEA was to be a visible symbol of allied solidarity. This, we believe, should still be the raison d'etre of the organization.

How can this purpose be achieved?

First, the United States needs to reiterate its support for the principles of the IEA Agreement. The stated preference of some officials of the Reagan Administration for letting the free market operate even in the event of a crisis has cast a shadow over whether the United States will support the IEA allocation system in the event of a crisis. Such doubt should be dispelled immediately by the Reagan Administration.

Second, the member states should reopen producer/consumer negotiations with OPEC to discuss the stabilization and predictability of world oil price increases, while at the same time insuring the steady development of the oil producing countries. Such an initiative would be a clear signal to Saudi Arabia that the major industrialized nations not only support Saudi efforts to stabilize global petroleum prices, but will also act to protect and assist the OPEC nations' long-term development objectives.

Third, the IEA needs to demonstrate a greater concern with the energy problems of the Third World nations, especially those few nations that account for the major part of LDC oil consumption. While we believe that over time it would be in the IEA's interest to bring these states into the emergency oil-sharing program once the difficulties of effecting their participation could be worked out, in the interim, we believe it is manifestly in the West's interests to create an institutional forum to help assist the LDCs in their energy problems.

Fourth, a common policy needs to be developed on cooperation in communist energy development and trade. U.S. policy has been ad hoc, reduced at times to jaw-boning our allies on avoiding dependence on Soviet energy imports while we could not decide what, if any, energy technology to sell them. At the same time, we have encouraged American companies to invest in energy development in the People's Republic of China. Unless the United States sits down soon with its allies and coordinates a common approach, this issue will have grave effects on the cohesion of the Atlantic Alliance.

Fifty, the time has come to encourage France to drop its long-standing opposition and to join the other industrial nations in the IEA. The election of President Mitterand provides an opportunity for a change in French policy. This opportunity cannot be lost. At the same time, discontinuities between the EEC's energy emergency sharing system and that of the IEA need to be coordinated to insure that they do not work at cross-purposes in the event of a crisis.

These are general policy prescriptions but more specific work also needs to be done.

The United States needs to support sub-trigger responses to supply shortfalls. Such responses do not necessarily entail the implementation of the allocation system but can require coordinated governmental stockpile and/or inventory drawdown policies that cannot be left solely to the operation of the free market. It is also important that common strategic stockpile programs and implementation policies be adopted and that the difficult issue of pricing allocated supplies be addressed on a timely basis. These efforts may require changes in U.S. antitrust restrictions on corporate cooperation with the IEA Secretariat. We believe the Reagan Administration should move with dispatch to propose legislation to deal with this problem.

In addition, every effort should be made to improve the quality and quantity of information flowing to the IEA. The United States should reevaluate its policy of monitoring oil company participation in the IEA, and analyze how much federal antitrust law inhibits the free flow of information to the Secretariat and hence IEA's ability to monitor and allocate oil supplies in a crisis.

Another major effort needs to be made on a program of demand restraint, i.e. conservation. Demand restraint has been so liberally interpreted that no real program has developed. Its success depends on the disposition of each member state to restrain domestic demand and there is little the IEA has done to determine if these programs have any real teeth or are paper tigers. Even current U.S. measures are astonishingly inadequate, and those that have been considered would save little energy in the short run—when the need for such programs may be greatest. The recent rejection by the Reagan Administration of several of the Carter energy emergency curtailment measures leaves us with even less of a responsive program.

Very little has been accomplished in the area of energy research and development. This seems to us to be a vital part of a reinvigorated international energy program. The opportunities for facilitating technical cooperation among the major industrial states for the exploitation of conventional and unconventional energy resources, including renewables, is limitless.

Cooperation in the development of the world's coal resources and its attendant transportation infrastructure should be given the highest priority. While we applaud the decision of the IEA to create a Coal Industry Advisory Board, the recent U.S. decision to terminate funding of the Morgantown coal liquification demonstration facility has raised questions in Western Europe and Japan concerning the degree of U.S. commitment to joint R&D projects. While all financial parties involved in the Morgantown facility were concerned about ever-escalating costs, the project was a symbol of U.S. commitment about Western Europe's and Japan's overwhelming dependence on imported oil. Its termination, coming in concert with continued delays by Washington in removing the many obstacles blocking the creation of a major U.S. coal export capability, has generated worry among our major allies about the degree of our dedication towards helping them.

Joint efforts in developing new expensive technologies to utilize coal should be encouraged by the government rather than being left to the marketplace, where private investors may balk at the large risk. Joint cooperation in such projects will breed a sense of solidarity so vital for the maintenance of a strong alliance, and will send a message to the OPEC oil producers that we will not be held hostage to their ever-escalating demands.

Finally, we must admit that the outlook for such international energy cooperation is bleak. But it is bleak because the United States appears paralyzed to act. Rather than moving forward and articulating a renewed approach to international energy policy such as was launched during the Ford and Carter Administrations, we seem to have retreated to an earlier, pre-1973 oil embargo era in which the United States could make its own way in international politics. But the world has changed and we must change with it.

Senator PERCY. We very much appreciate your presence here today. The hearing is adjourned.

[Whereupon, at 11:35 a.m., the subcommittee recessed, to reconvene subject to the call of the Chair.]

ADDITIONAL MATERIAL SUBMITTED FOR THE RECORD

[From Discovery, January–February 1981]

Energy and Security

(By David A. Deese and Joseph S. N[illegible])

When the Seventies began, Americans imported 3.5 million barrels of oil a day, about one-quarter of our needs. The price was about two dollars a barrel, and we were the largest oil producers in the world. Three years earlier, we had easily foiled an attempted oil embargo triggered by the Six-Day War. But by the end of that distressing decade, we were importing 8.5 million barrels per day—nearly half our needs—at fifteen times the price charged only a few years before, and domestic oil production was in an apparently irreversible decline. The painful 1973 Arab oil embargo seemed to have taught us nothing when the Iranian revolution curtailed production in 1979. Now we confront a dangerous and highly destructive war between Iran and Iraq. President Carter did not exaggerate when he called the situation "a clear and present danger to our national security."

Today, nearly two-fifths of the oil consumed by the free world's economy is vulnerable to terrorism, accident, warfare, and extortion. The sudden loss of Persian Gulf oil for a year could stagger this economy, disrupt it, devastate it, like nothing since the Great Depression of the 1930's. The Congressional Budget Office estimates that the loss of Saudi Arabian oil in 1984 would alone cost the United States $272 billion, increase the unemployment rate by two percent, and boost the already worrisome inflation rate by twenty percentage points. And costs to our allies would be even greater. According to another estimate, a nine-million-barrel-per-day cut-back of Saudi oil for a year would slash the American GNP by 6.6 percent, the European GNP by 8.8 percent, and the Japanese GNP by 9.5 percent. The loss of *all* Persian Gulf oil would cut America's GNP by 17.6 percent, Europe's by 23.3 percent, and Japan's by 27.3 percent. Of course, these estimates are only approximations, and they may be overstated. But even if they are twice as high as they should be, the potential economic costs of major supply interruptions are clearly terrifying.

So is the threat to our foreign policy. Since the end of World War II, American strategy has focused on the defense of Europe and Japan, the two greatest concentrations of economic power outside the United States and the Soviet Union. The prosperity and solidity of the democratic alliance have been central to the postwar balance of power. But today this balance could be upset by the stress and strain that energy-security problems exert on Western prosperity and the strength of our alliances. The vulnerable and volatile Middle East is outside the scope of our formal alliance frameworks, and any coordination of domestic economic and energy policies among democracies with different interests is bound to be particularly difficult.

In fact, differences in the allies' vulnerability to energy disruptions present the Soviets—and others—with better means of damaging Western alliances than by direct military threats. Europeans and Japanese, for example, might respond positively to Soviet offers to guarantee energy supplies, even though the United States would argue that such steps would legitimize Soviet influence over these regions' economic lifeline. Western policy toward Israel shows a similar tendency to reflect different degrees of economic exposure to Arab wrath. Other foreign-policy hazards include the temptation to trade sensitive nuclear technology for oil supplies—witness Italy's relations with Iraq—and the problems of managing the world economy and of preserving stability in indispensable but economically fragile allies, such as Turkey, when oil prices rise precipitously. These foreign-policy costs are not susceptible to numerical statement, but their magnitude might be judged by speculating about the resources that we would spend to avoid them.

Our concern about military security leads us to spend $150 billion yearly on military forces, the largest part of which is devoted to strengthening the North Atlantic Treaty Organization (NATO). Important as these expenditures are, the

probability of Soviet tanks rolling across the north German plain is much lower than the likelihood of a large interruption of oil supplies stemming from various conflicts in the Middle East. Yet our energy plans and our diplomatic strategy do not reflect these probabilities. We are far less prepared for an energy emergency than for a military attack.

In the face of our growing exposure to these economic, political, and military dangers, we Americans have done little or nothing constructive. "Consider this anomaly," noted the Washington Post early in 1980: "The president and a great many more Americans are prepared to talk openly of war to secure the oil routes out of the Gulf. But neither the president nor many others are ready to impose a tax on gasoline to diminish imports that, everyone agrees, constitute a clear and present danger to the national security." Yes, the president did propose a modest import fee, but it was rejected by the Congress. The sad truth is that many government actions taken after 1973—domestic price controls, for instance—have actually made our situation worse. Unwilling to allow rising prices to benefit some Americans while penalizing others, we have squabbled among ourselves and followed policies that have let our society's burden grow. Our dependence on oil imports increased 25 percent between 1973 and 1979, and our overall energy security diminished. We talked the high rhetoric of energy security, but our policies belied the words.

So today, nearly a decade after the first warning signals, we still need a coherent policy for energy security. But devising a strategy and thinking about energy as a security problem are not as simple as they first seem: any judgment about security is necessarily complex. Security is a matter of degree, and how much insurance one needs in order to feel secure is a function of the probability of the threatening event and the magnitude of the potential damage. Damages can be defined narrowly, in terms of survival, or broadly, in terms of a whole range of values including welfare, independence, status, and power. We generally speak of national security as the absence of threat to a broad range of values in addition to survival. Indeed, some national-security policies, such as our possession of nuclear weapons, may increase the risk to simple survival in order to deter threats to those values. Similarly, energy security is only part of national security: in some circumstances we would risk energy supplies for other assets we consider part of our national security.

Looking back at American policies for energy security in the 1970s, one is struck by two strong ironies. First, we talked about energy security, but some of the policies that followed the talk actually made us more insecure. Second, the United States acted as though government controls at home and market forces abroad would solve its energy-security problems. when the opposite was closer to the truth. We failed to recognize the changing realities of world politics, the erosion of the international regime that once governed oil transactions. As a result, our present energy-security problem reflects an underreliance on economic remedies domestically, and an overreliance on them internationally.

INVENTORY OF POLICY INSTRUMENTS, BY SITUATION

	Bargained extortions		Chaotic interruptions	
	Domestic policy	Foreign policy	Domestic policy	Foreign policy
Deter and prevent actions.	Demand restraint; strategic reserves; private stocks.	Military posture; diplomacy; diversification of sources; import restraints.	----------	Military posture; diplomacy.
Defend flows	----------	----------	----------	Intelligence; military assistance; intervention.
Restore flows	----------	Foreign-policy concessions; intervention.	Stock surplus equipment.	Repair capacity; airlift capacity.
Alleviate effects	Strategic reserves; private stocks; emergency procedures; disruption tariff or taxes; surge production.	IEA sharing plan; coordinated stocks; coordinated demand restraint.	Strategic reserves; private stocks; emergency procedures; disruption tariff or taxes; surge production.	IEA sharing plan; coordinated stocks; coordinated demand restraint.

There is no quick fix or single solution to our energy-security problem. A successful strategy must alleviate the short-term problem while it reduces our vulnerability over the next decade by making use of a wide variety of domestic- and foreign-policy instruments. The table below lists some of the options, according to their relevance to different threats that are generally classified as either "bargained extortions" or "chaotic interruptions." Extortions include large price increases, subtle pressures to adopt foreign policies favorable to producers' positions, and the political use of threats to cut back or withhold oil entirely; they imply a bargaining relationship with rational actors. Chaotic interruptions may arise from war, revolution, accident, or sabotage—events generally beyond the control of producer governments.

No matter what the threats, we must design a strategy to deter or prevent unfriendly actions, defend the flow of oil, restore it, and alleviate the effects of disruptions on our domestic and foreign policies. Strategies must be both resilient and flexible since, during any crisis, information will be scarce and confusion high. The accompanying table suggests the importance of integrating domestic- and foreign-policy instruments, the optimal mixture of policy responses varying according to the size of the interruption. It also reveals that, in some situations, we have few instruments with which to defend ourselves.

The highest priority must be placed on putting U.S. energy affairs in order. Misguided domestic energy policies, such as import quotas and price controls, have helped make the United States extremely vulnerable. By demonstrating leadership at home, we can reduce our vulnerability and profoundly improve our position in relations with our allies, with producer countries, with developing nations, and even with the Soviet Union. It is important to continue demand-reduction and supply-enhancement measures to lessen our dependence over time. The decontrol of oil and gas prices provides signals for energy efficiency throughout the economy, as well as incentives for increased production. Legislated efficiency standards for automobiles and buildings, and subsidies to encourage conservation and develop new fuel alternatives to oil, can also help stimulate appropriate investment decisions. But, as noted earlier, such measures contribute only modestly to solving the vulnerability problem that looms so large over the next five years.

How then can we prepare for the next crisis? Plans to deal with supply interruptions should address three separate contingencies: the direct constriction of supplies, economic shocks arising from sharp price increases and panic-stockpiling, and the disruption of our alliances and foreign policy. These plans must be flexible enough to deal with a range of unpredictable emergencies, from a small shortfall to complete termination of Persian Gulf imports. The measures we select should allow us to respond to politically inspired embargoes (bargained extortions) and reductions arising from wars, revolution, and other forms of political turbulence (chaotic interruptions). We must also allow ourselves time to assess the extent of the interruption and to implement longer-term policies. Our energy plans must go into effect almost automatically, to avoid placing untenable political demands on the president and Congress that could lead to short-sighted actions, such as rationing or rash oil purchases on the spot market, and prevent adequate treatment of strategic, nonenergy concerns. Finally, they should be applied quickly and resolutely, to overcome uncertainties that can lead to panic.

The United States has three policy instruments to help it weather supply interruptions. Withdrawing oil from stockpiles could reduce world price pressures, help meet IEA sharing requirements,[1] and dampen domestic dislocations. Allocating scarce supplies through higher prices or regulations could minimize dislocations and inequities. And reducing demand for petroleum through emergency price actions or supply enhancement would decrease the amount of oil subject to any allocation system. In essence, substantial withdrawals from stockpiles could minimize the damages from interruptions, while allocations and emergency curtailment and supply measures could generally only make interruptions somewhat more bearable.

The size, duration, and causes of a supply interruption are unpredictable. Although each case will be different, certain basic steps are essential to an effective response in the early stages of any interruption. No matter what the situation, our initial actions should be the following:

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[1] The International Energy Agency is an autonomous body that was established in November 1974 within the framework of the Organization for Economic Cooperation and Development (OECD), to implement an individual preparations among the 21 member countries for major oil-supply disruptions and actual oil sharing during emergencies. Established in 1960, the OECD promotes world trade and strong economic growth among its 24 member nations, which are the United States, Canada, Japan, Australia, Turkey, Greece, and eighteen Western European countries. OECD members that do not belong to the IEA are Finland, France, and Iceland. Both organizations are located in Paris.

First, immediately after a disruption occurs, the United States should announce a schedule of stockpile withdrawals and a pricing policy for the released oil.[2] That action would counter panic and hoarding by oil companies, foreign governments, and the American public; it would also reduce upward price pressures on the spot price of oil. Energy policymakers can learn a lesson here from the banking industry: When depositors are in a panic, the best thing to do is "keep the windows open."

Second, the United States should quickly institute a stand-by emergency tax on gasoline, to reduce demand immediately after the supply interruption and before shortfalls actually appear in the marketplace, which would be expected in sixty to ninety days. The experience of the Iranian cutback clearly demonstrates that the United States could well have avoided gasoline lines in the summer of 1979 if such an emergency tax had been in effect early that year.

Third, the government should initiate conservation and supply-enhancement measures that proved effective during the crises of 1973–74 and 1979, such as temporarily switching to natural gas and the redistribution of electricity produced from coal and nuclear facilities.

With an aggressive domestic program that helped reduce price pressures on the world oil market, the United States could work with its allies on cooperative measures. Specifically, the United States could encourage reasonable use of allied stockpiles, advocate demand-restraint measures, and establish an orderly purchasing policy as a quid pro quo for U.S. stockpile releases. Although the United States would have less leverage over producing countries, efforts should at least be made to moderate prices and to encourage greater production from spare capacity.

As the depth and duration of the interruption became more apparent, the United States would have to adjust its policies. If production were quickly restored, then the use of the strategic reserve along with a temporary gasoline-tax and market-allocation system would be adequate. If, however, the interruption were to persist, additional supply and conservation measures would be needed.

Putting preparations into practice automatically seems to run against the instinct to keep one's options open. Unfortunately, by keeping its options open the United States would be likely to drive other consuming nations into price bidding and competition while encouraging oil companies to build stocks. By taking resolute and immediate domestic action, the United States could forestall the panic that leads to upward spiraling of prices and lay a sound basis for pursuing international corrective measures.

A sound strategy for energy security must integrate several major foreign-policy factors: our political-military posture vis-à-vis the Soviet Union and the Persian Gulf, leadership and cooperation among major consumers, relations with our neighbors, stable growth for the developing countries, and interdependence with OPEC producers. Although it is convenient to discuss each factor separately, in practice the policies are highly interactive. A difference between U.S. and Western European policies on an important issue, for example, is likely to affect all other aspects of foreign policy.

No longer can we afford to neglect our political-military posture in the Persian Gulf. Gone are the days of relying simply on a single head of state, such as the shah of Iran, to protect our profound strategic interests in the region. Nor can we launch an arms-control proposal, such as the demilitarization of the Indian Ocean, without regard to its impact on our energy security.

The United States, other oil-importing nations, and the major oil exporters face a complex set of threats to Middle East oil supplies. Ranked on a scale of descending likelihood of occurrence—and ascending military response required—these threats are: (1) terrorist sabotage of key loading facilities; (2) civil or interstate wars that destroy production capacity; (3) takeover of a major producer state by Soviet proxies or allies; and (4) Soviet airborne and tank-led invasion. Thus, Soviet control of, or heavy influence over, our economic lifeline would have the most far-reaching effects on Western security; but the lower-level threats pose the more imminent problem for stability in the gulf. Since these threats are interactive, designing responses is a difficult task. If we concentrate on the most serious threat, the prominent military posture most effective in deterring further Soviet aggression might actually increase the probability of indigenous threats.

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[2] The United States has three types of commercial petroleum stockpiles, in addition to its strategic petroleum reserves. Primary stocks include crude-oil products at refineries, in pipelines, and at major bulk terminals. Secondary stocks are held by wholesalers and retailers. Tertiary stocks are held by homeowners and industry for their own use. We currently have about 330 million barrels of primary and strategic stocks available for emergency use. If we use an oil-import level of about seven million barrels per day, this means that the U.S. holds the equivalent of fifty days of imports and usable stocks. Yet only the strategic stocks, or about fifteen days of imports, are actually available to the government for use during an emergency.

This situation calls for clear and consistent U.S. foreign-policy and defense signals: signals to allies that we will work closely on political-military measures in the gulf; to the Soviets that any direct threat to, or actual attack on, oil supplies from the gulf will elicit immediate military response; and to key producers that military training, arms, and equipment, and even direct military support, are available for defense against external aggression. We can work to redress the military imbalance in the region while not building expectations that we can reverse the geographic reality of Soviet borders some five hundred miles from the oil fields.

The basis for consumer cooperation in an emergency already exists in the International Energy Agency, established in the aftermath of the 1973 oil embargo. Under the IEA's emergency oil-sharing plan, members agree to maintain reserves equivalent to twenty days of imports; to develop programs to reduce consumption in an emergency by seven or ten percent, depending on the severity of the shortfall; and to allocate the remaining available oil by a predetermined formula designed to spread the shortfall relatively equitably. A shortfall must reach seven percent of the group's consumption (or about 2.8 million barrels per day) before the plan takes effect. Alternatively, if a single country suffers a shortfall greater than seven percent of its consumption, the sharing plan can be triggered, but that country alone must reduce its consumption by seven percent before the others share oil with it.

How well does the IEA work? It has a number of flaws, the three most obvious being its lack of a major consumer (France), the unwieldiness of getting its 21 members to agree quickly, and its longstanding caution about any action appearing to force a confrontation between consumers and producers. Nonetheless, it has an able secretariat and has at times provided a useful forum when states have desired to act. Will it work in an emergency? The answer depends in part on the situation.

Our view is that the IEA has a significant ability to defend consumer countries in many situations—but not in all. The IEA agreement legitimizes equalizing forces within the market and creates a presumption against government interference. More generally, it also provides a useful forum for the exchange of information and the coordination of policies, especially when coordination requires that the energy ministers of several nations press their colleagues back home to "do the right thing" and restrain domestic demand. The great weakness of the IEA is that it deals only with energy issues, narrowly defined, when a workable energy-security strategy must incorporate nonenergy measures and be an integral part of the foreign and national-security policies of all consuming nations.[3]

IEA members should immediately consider several courses of action. The first priority is to shore up the agency. The second must be the coordination of national stockpiles, to prevent members from being at cross-purposes in the building and selling of reserves. A third is to forge agreements or controlling panic-buying in disrupted markets. A final priority for consumer governments is to consider new bilateral and multilateral procedures to supplement and reinforce the IEA. It might be useful, for example, to create an energy-security group at the ministerial level that would involve France, stimulate more active participation by Germany and Japan, include both energy and foreign-policy officials, and focus on those broad aspects of energy-security that the IEA does not now address.

Relations with our neighbors in the Western Hemisphere are also an important dimension of our energy-security problem. Although increased Western Hemisphere production will be essential in the near future, North American oil will not save us from a serious disruption; and even if it could, we would remain vulnerable through our allies. A cardinal rule of politics in both Canada and Mexico is to keep the Yankees at arm's length. Canada itself is vulnerable to oil disruptions despite its net self-sufficiency, struggling with strong nationalism in the debate over the control of its oil industry and energy exports, and torn by fierce disputes between producing and consuming provinces. In the case of Mexico, in particular, pressure for rapid expansion of oil exports could result in fundamental social and political change, undercutting both its national security and ours.

What we *can* do with Mexico and Canada is quietly discuss procedures for emergencies and help them develop their long-therm production capacity. Both nations have an interest in the growth of the American economy and the stability of American policy. Mutually beneficial steps could be taken by Mexico to provide surge-production capacity, and by Canada to redistribute supplies or to produce more oil or gas in any emergency.

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[3] The agreement is also opaquely technical, hindering public understanding. Definitions of stockpiles are complex, and unrelated to usable reserves for emergency conditions. The formula cannot be read and understood, but rather requires complicated calculations. It is probably fair to say that many usually knowledgeable people in Congress, the executive branch, business, and the press do not understand this critically important agreement.

Our allies and neighbors are not the only countries about which we must be concerned. We have vital economic, foreign-policy, security, and humanitarian concerns in developing nations all around the world, The 85 oil-importing developing countries (OIDCs), including Brazil, Pakistan, and the Philippines, import only about fifteen percent of internationally traded oil, but that oil-inport burden now poses a first-order problem to most of humanity. Their dependence will persist over the next decades; their severe vulnerability will almost certainly worsen. Of all the countries laboring under these strains, the OIDCs will remain the most threatened and the least able to define and correct the causes of their misfortune.

These nations have very few options. They must manage better their own domestic economies and energy policies, especially foreign-exchange rates, deficit financing, and the pricing of petroleum products. They should encourage carefully designed increases in foreign assistance and foreign private investment, conceive new lines of exports, and renew efforts to accelerate the export of traditional goods. Perhaps above all, they should strive to enter into agreements with oil producers to assure themselves of supplies during disruptions and of lenient pricing policies under all conditions.

There are also several important steps that the United States can take to help these nations. First, we can avoid making their situation much worse by depressing our demand and closing our markets to their exports, as we have, for example, to textile goods from Brazil. Almost as helpful is controlling the inflation in Western economies, which drives up the prices of the goods they import from us. Third, we should use international channels to press members of the Organization for Economic Cooperation and Development, OPEC, and other international groups to help them cope with oil-price increases. Price concessions by OPEC members for the poorest countries would cost very little and could be the single most direct and effective measure availabe. Fourth, we can support larger and less conditional International Monetary Fund loans to back up the private-banking system financing OIDC deficits. And lastly, through bilateral assistance, the World Bank, the foundations, and many other private sources, we can encourage the development of conventional and new energy sources in those countries. Reviewing these proposals, Western readers will see that their own welfare also depends on taking the recommended steps to help developing countries.

The final international dimension of the U.S. energy-security problem concerns our relations with the key producing countries. Although these relations have an adversary dimension, they involve a certain amount of cooperation. However, conditions are not propitious for successful collective bargaining. Even if the agenda of such a bargaining session is limited to energy, the prospects for creating a more satisfactory oil-market structure will not be good until the consumer governments do more to get their individual and collective houses in order. But these facts do not prevent low-key, broad, bilateral dialogue. International financial and foreign-assistance issues—especially means to alleviate the economic effects of rapid oil-price increase—should be discussed with producers in the International Monetary Fund and World Bank. The special problems of the OIDCs could be dramatized by debate in the United Nations and elsewhere. Bilateral talks and arrangements with producers could center on expanding their capacity, especially surge capacity for emergencies, in return for transfer of technology, investments, and assistance with their development plans, In short, quiet and decentralized dialogues can establish the basis for longer-term cooperation between consumers and producers.

The hard work of devising a realistic energy-security strategy requires the resolution of difficult issues and the deft application of various economic, military, and diplomatic measures. The fate of many other nations' energy security rests on the effectiveness of America's response, but this nation needs to do a great deal at home before it can hope to lead and help others. Even as we work patiently for a more sustainable international oil-market structure, we must gain a far greater sense of urgency with respect to our domestic affairs.

Our preparedness for oil interruptions has only minimally improved over the last decade. The strategic reserve is only a skeleton of what it should be, and a workable allocation program is nonexistent. Our historic emphasis on import reduction has diverted our intellectual and physical resources from our most pressing energy problem: vulnerability to a supply interruption. Our preoccupation with imports has made us less, rather than more, secure.

Can we learn from the past and prepare for the future? If the United States can develop comfortable public and private stockpiles and a market-allocation system that give it confidence in its ability to survive interruptions, then its renewed self-confidence and international credibility will provide the moral power of leadership. Only with leadership from the world's greatest consumer can we create a more stable world economic order, secure in its energy future.

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